

**Senior Army Logistian Preparedness
For
Expeditionary Theater Opening
and Theater Distribution Operations**

**A Monograph
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Abstract

SENIOR ARMY LOGISTICIAN PREPAREDNESS FOR EXPEDITIONARY THEATER OPENING AND THEATER DISTRIBUTION OPERATIONS, by Colonel Phillip A. Mead, USA, 53 pages.

When the nation calls to exercise military force in support of a Major Combat Operation (MCO) campaign, the Department of Defense is required to open a theater of operations. Since the majority of troop deployments and materiel movements occur in support of the U.S. Army, the headquarters of choice to serve as the joint force commander and supported by USTRANSCOM to orchestrate and synchronize theater opening and theater distribution operation is the U.S. Corps Headquarters or the Operational Command Post (OCP) from an Army Service Component Command (ASCC).

The G4 for both the U.S. Corps and the ASCC OCP is a colonel. Should the combatant commander direct the Army service component to form a Joint Force Headquarters (JFC), either a Joint Task Force (JTF) or a Joint Force Component Command (JFLCC), and conduct theater opening, how well prepared is the logistics colonel to plan, execute and control the logistics portion of the Expeditionary Theater Opening (ETO) and theater distribution (TD) operation.

The most critical component to ETO and TD is the strategic-to-operational seam. Covering this seam are four U.S. Transportation Command (USTRANSCOM) deployment and distribution capabilities. These capabilities include the Joint Task Force Port Opening (JTF-PO), the Joint Deployment and Distribution Operation Center (JDDOC), the Director Mobility Forces-Air (DIRMOBFOR-A), and the Director Mobility Forces-Surface (DIRMOBFOR-S).

This monograph employed the Chairman of the Joints Chief of Staff (CJCS) joint learning continuum to help answer this preparedness question. In the context of the four USTRANCOM capabilities, and through the lens of the U.S. Army logistics colonel, assessed was the completeness of joint doctrine, U.S. Army Joint Professional Military Education (JPME), joint assignment opportunities, and performance during the U.S. Joint Forces Command (USJFCOM)-led and U.S. Army Battle Command Training Program (BCTP) simulation exercise.

The study identified much latency with keeping joint doctrine and U.S Army JPME institutions up-to-date, and insufficient joint assignment opportunities for senior Army logisticians to acquire joint experience. Nonetheless, actual senior logistician performance during the BCTP exercises involving ETO and TD was rather positive. Findings conclude that U.S. senior Army logisticians are trained in joint matters and are mission ready, and that both USTRANSCOM and USJFCOM are working together to ensure the strategic-to-operational logistics seam is adequately documented in support of individual and collective training events.

To improve senior U.S. Army logistician preparedness to execute ETO and TD operations, study recommendations target incremental enhancements to the CJCS joint learning continuum. The education, training, and experience enhancements include various modifications to joint doctrine and the Universal Joint Task List (UJTL), changes to joint assignment policies and strategies, and more extensive incorporation of USJFCOM training capabilities in unit BCTP preparation.

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Introduction

"Historical examples clarify everything."
—Carl von Clausewitz¹

In mid April 2003, U.S. Soldiers in Kirkuk, Iraq welcomed the passing of winter each day, as the moderate temperatures brought much relief and comfort. The changing of seasons served as a metaphor for a better future, for both the Iraqi citizens and their newfound hope, the United States Soldier. With each passing day, the 173D Airborne Brigade witnessed vast logistical improvements. The abundance of medical, subsistence, repair parts, lumber, and other common items was unique to the Iraqi theater in that the 173D Airborne Brigade had a direct Air Line of Communication (ALOC) back to Ramstein, Germany.

The rest of the U.S. forces in Iraq were not as fortunate. As word of the direct ALOC spread to U.S. elements north of Baghdad, both ground convoys and rotary wing aircraft established scheduled runs to Kirkuk for critical support. The air bridge, though effective, operated on a push distribution system resulting in overstocking of medical, lumber, sundry packages, lubricants, and various subsistence items. Clearly, the initial distribution system out of Kuwait was inefficient, but in a different way. As U.S. units wanted for nothing and resorted to using abandoned Iraqi aircraft hangers to store excess box milk, juice, power bars, and cereal.²

Two years later in August 2005, the Government Accounting Office (GAO) released an extensive review of Operation Iraqi Freedom regarding defense logistics and supply distribution.

¹ Carl Von Clausewitz, *On War*, ed. Michael Howard and Peter Paret (Princeton, New Jersey: Princeton University Press, 1976), 170.

² Author was the Commander, 501st Forward Support Company, 173rd Airborne Brigade during the forced entry operation into Northern Iraq. Author's recollection regarding Kuwait ground lines of communication challenges are supported by the assessment of COL (Retired) Gregory Fontenot, *On Point: The United States Army in Operation Iraqi Freedom*, (Fort Leavenworth: Combined Studies Institute, 2004), 408-409.

In this report, the GAO identified six focus areas that required improvements - the same six areas identified after Desert Shield/Storm in 1991. They include delayed logistics force reception, limited communication with long lines of communication, shortage of ground transportation, inter-theater distribution difficulties, limited asset visibility, and misuse of shipment prioritization.³ Though initially identified during Desert Shield/Storm 12 years earlier, the same theater opening and distribution challenges continued to plague the joint sustainment community. What do these systemic problems say about the logistical capability of U.S. forces to conduct expeditionary operations?

The U.S. Transportation Command (USTRANSCOM) catalogued the theater opening and distribution deficiencies, which encompass the strategic-to-operational logistics seam, into three categories. They include the inability to exercise a single control point for logistics to reliably and rapidly communicate and satisfy logistics requirements, ineffective management of the transition between strategic and operational theater distribution systems, and no usable or efficient link within the Department of Defense (DoD) Services to the logistics process owner.⁴ To address the strategic-to-operational logistics seam, the DoD assigned the Commander USTRANSCOM as the Distribution Process Owner (DPO) for joint theater deployment and distribution.⁵

³ U.S. Government Accounting Office. "Report to the Subcommittee on Armed Services, House of Representatives. Defense Logistics: DOD has Begun to Improve Supply Distribution Operations, but Further Actions are Needed to Sustain these Efforts" (Washington, D.C.: Government Printing Office), 6-8.

⁴ U.S. Department of Defense. U.S. Transportation Command. "Distribution Process Owner: Joint Deployment Distribution Operations Center" (Scott Air Force Base: USTRANSCOM, 2005), 5.

⁵ The process owner is the head of the DoD Component assigned a responsibility by the Secretary of Defense when process improvements involve more than one DoD Component. The process owner has the responsibility for coordinating, sustaining, and improving processes; coordinating the creation of new processes, where appropriate; and being accountable for their outcomes. Designation occurred on 16 September 2003.

The consolidation of authority under one process owner was intended to eliminate existing seams, standardize policy and performance goals, develop interoperable information technology and enhance asset visibility, institutionalize sustainment planning in contingencies, and streamline distribution accountability under a single combatant commander.⁶ Over a two-year period, USTRANSCOM experimented and introduced a new Joint Deployment and Distribution Enterprise (JDDE) architecture that included four global deployment and distribution capabilities for the Joint Force Commander.⁷ These global capabilities, some new and others formed following lessons from Desert Shield/Storm, built sufficient capacity into the deployment and distribution pipeline, exercised sufficient control over the pipeline from end-to-end, and provided a high degree of certainty to the warfighters that forces, equipment, and support will arrive where needed and on time.⁸ The enablers included the Joint Deployment Distribution Operations Center (JDDOC), the Director Mobility Forces -Air (DIRMOBFOR-Air or DM4-A), the Director Mobility Forces-Surface (DIRMOBFOR-Surface or DM4-S), and finally the Joint Task Force-Port Opening (JTF-PO).⁹

⁶ U.S. Department of the Army. *Army Logistian*, “USTRANSCOM Named Defense Distribution Process Owner” (Fort Lee: U.S. Army Logistics Management College, January 2004), 49.

⁷ The JDDDE is the complex of equipment, procedures, doctrine, leaders, technical connectivity, information, shared knowledge, organizations, facilities, training, and materiel necessary to conduct joint distribution operations. This definition comes from Department of Defense Instruction 5158.06, dated 11 September 2007.

⁸ End-to-End includes the boundaries of the JDDE applicable to force deployment and movement of materiel to support the operational requirements of a Combatant Commander or a Joint Force Commander. Force deployment boundaries originate at unit origin or home station and terminate when units are located at their JFC designated point of need. Inclusive are intra-continental, inter-theater, intra-theater movement, and reception/assembly activities, as required. Materiel movement commences at the source of supply and terminates with commodity receipt by the consuming unit.

⁹ Appendix A, Deployment and Distribution Command and Control, provides detailed information on the four USTRANSCOM strategic enablers.

If past is prologue, then U.S Army senior logistician education, experience, and training requires examination. Furthermore, how well prepared are senior logisticians to serve on a joint force headquarters as the J4 to plan, execute and control theater opening and distribution operations leveraging the four newly-formed USTRANSCOM enablers? Focusing on the human dimension, the logistician's preparedness is unique in that nearly all DoD studies focus on function, structure, and process.¹⁰ This holistic-study approach frames the function (theater opening and distribution), the structure (newly formed USTRANSCOM deployment and distribution capabilities), and the process (visibility and control over forces and materiel), through the lens of the U.S. Army senior logistician's education, experiences, and collective training.¹¹

Since the USTRANSCOM deployment and distribution enablers are relatively new, challenges are expected in the U.S. Army senior logistician's ability to effectively plan, execute, and control these capabilities. In short, the inquiry is singularly focused on the senior logistician's preparedness. First, this study posits that joint doctrine has not sufficiently integrated the USTRANSCOM global deployment and distribution capabilities. Next, lagging with doctrine, is the U.S. Army Joint Professional Military Education (JPME). Finally, joint assignments are not abundant enough to provide sufficient strategic-to-operational logistics experience to the U.S. Army sustainment officers.

Consequently, the joint doctrine, education, and joint assignment opportunity shortfalls negatively affect the U.S. Army senior logistician's preparedness to serve as a Joint Task Force (JTF) or Joint Force Land Component Commander (JFLCC) J4 and conduct the primary

¹⁰ The human dimension qualifies this examination as unique and unstudied. Furthermore, an inquiry into senior logistic officer preparedness as informed by their education, training, and experience is novel. An extensive public domain search resulted in no studies that paralleled this effort.

¹¹ The complex systems framework of Jamshid Gharajedaphi, author of *Systems Thinking. Managing Chaos and Complexity*, inspired the study approach.

responsibility of planning, executing, and controlling theater opening and distribution operations. An analytical review of doctrine, education, and joint assignment opportunities serves to inform the scope and magnitude of the first three posited gaps. The last shortfall, senior logistician preparedness to operate in the joint logistics environment as a J4, requires a realistic and stressful environment for evaluation. This environment is the U.S. Joint Forces Command (USJFCOM)-led and U.S. Army Battle Command Training Program (BCTP) computer-simulated exercise.

The terms Army senior logistician and experience require enumeration. The study limits Army senior logistician to the rank of colonel and includes the ordnance, transportation, and quartermaster functional skills that comprise the force sustainment competency. At the rank of colonel, senior logisticians will either serve as advisors to a joint force commander and/or serve as the J4 on a one, two, or three-star JTF/JFLCC headquarters. For example, the newly designed Army Service Component Command (ASCC) modified table of distribution and allowances calls for a colonel to serve as the G4/J4 on its Operational Command Post (OCP), the theater Army deployable warfighting capability that is commensurate with a U.S. Corps HQ at the three-star level.¹² The focus on the force sustainment colonel therefore dictates that the ASCC OCP and the U.S. Army Corps, operating as either a JTF or JFLCC, are the correct BCTP training event for evaluation.¹³

¹² U.S. Army Force Management Support Activity, Modified Table of Organization and Equipment for Headquarters, United States Army Europe, EDATE July 15, 2009. The actual duty title for the senior logistician on the ASCC OCP is the ACOFS Logistics. The term 'G4' is used in the text since this position is commensurate with the Corps G4 position, with one caveat. The ACOFS Logistics position is responsible for synchronizing all sustainment functions (logistics, personnel, engineer, and medical).

¹³ General officers are not included in this study for two reasons. First, 10USC requires General Officers to be joint qualified and competent and qualified in joint matters. Second, by U.S. Army Table of Organization and Equipment a General Officer does not fill the Corps G4 or the ASCC OCP G4 position. The J4 for a 3-star and below JTF/JFLCC for the Army is a colonel.

The other term requiring enumeration is experience. According to Field Manual 6-22, *Army Leadership*, "Leaders acquire joint knowledge through formal training in the Joint Professional Military Education program and assignments in joint organizations and staffs.¹⁴ In the context of this inquiry, the term experience refers to the joint knowledge of theater opening and distribution Army logisticians gain while assigned to joint organizations and staffs.

To research the adequacy of the U.S. Army senior logisticians education, experience, and training and test the hypothesis that logistics officer preparedness is deficient, the Joint Learning Continuum as outlined in Chairman of the Joint Chiefs of Staff (CJCS) *Joint Training Manual* informs both data collection and analysis.¹⁵ The Chairman describes the joint professional development as a learning continuum of interdependent pillars that includes education, individual training, self-development, experience, staff training, and collective training. The convergence of these pillars over time is a mission ready Soldier.¹⁶

Leveraging the Joint Learning Continuum, the study methodology analyzes four professional development areas in order to assess senior logisticians theater opening and distribution preparedness. First, the study focuses on joint doctrine (publications, TTPs, and UJTL tasks) to ascertain how well documented are the four USTRANSCOM deployment and distribution capabilities. Second, it reviews U.S. Army senior leader JPME accredited institutions (Command and General Staff College and U.S. Army War College) to assess the integration of the USTRANSCOM capabilities into core curriculum. Third, it examines the quantity and quality of joint assignments that best prepare the logisticians for theater opening missions.

¹⁴ U.S. Department of the Army. Field Manual 6-22: *Army Leadership* (Washington, D.C.: Government Printing Office, 2006), 6-7.

¹⁵ U.S. Department of Defense, Chairman of the Joint Chiefs of Staff Instruction 35000.03B: *Joint Training Manual for the Armed Forces of the United States* (Washington, D.C.: Pentagon, 2008), G-1.

¹⁶ This study intentionally omits individual training or self-development since both CJCS

Fourth, the study reviews logistician performance during BCTP exercises to assess their joint knowledge and understanding of the USTRANSCOM deployment and distribution capabilities. Ultimately, the inquiry identifies how well educated, experienced, and trained today's senior U.S. Army senior logisticians are to serve on a joint force headquarters as the J4 to plan, execute and control ETO and theater distribution operations. Logistician preparedness is the underlying theme and the thread that binds this study. The inquiry framework below provides a graphical representation of the study methodology.

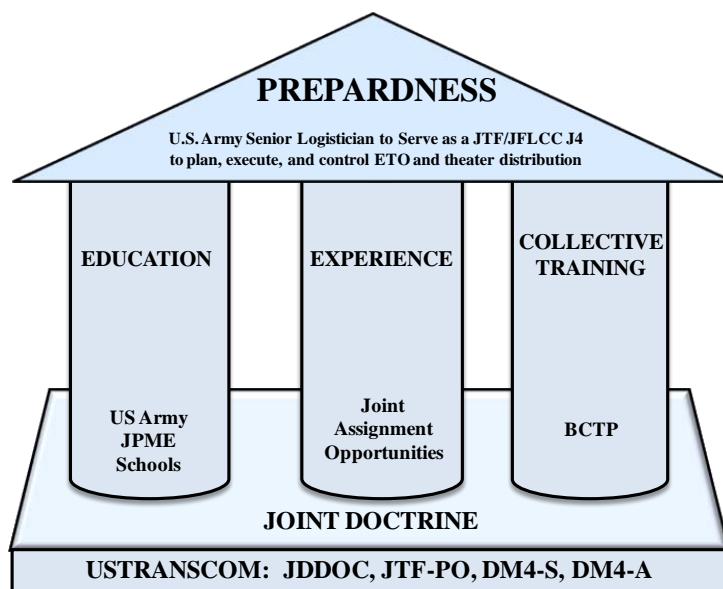


Figure 1. Inquiry Framework¹⁷

An inquiry focused on human capital, the U.S. Army senior logitian, is a worthy endeavor since the role of the senior leader is central to the U.S. Army as an institution and to its culture. According to Army Field Manual FM 6-22, *Army Leadership*, "Army institutional training, combined with education, training, and development on the job, aims ... to develop a

Joint Learning Continuum pillars require extensive surveys and evaluations.

¹⁷ Author's original work. Created December 15, 2008.

well-rounded leader.¹⁸ The U.S. Army Chief of Staff, General George Casey in the 2008 Army Posture Statement, enumerated the leader as the centerpiece. GEN Casey again addressed leader training on 13 August 2008 when he disseminated training guidance to the field. In this directive, General Casey referenced Field Manual 3-0, *Operations*, and the imperative that "Army leaders must be ... competent in their core proficiencies." He went on to stress the complexities of the 21st Century warfare and the additional burden on leaders at every level. General Casey posited that future officers required Professional Military Education, self-development and lifelong learning to succeed in Full Spectrum Operations.¹⁹ The prescription for success as inscribed by General Casey includes an officer narrative grounded in education, training, and leader development.

Contributing to the study's relevance are anticipated future regional and global challenges. According to U.S. Army Field Manual 3-0, *Operations*, driving forces causing regional instability include globalization, technology, demographic changes, urbanization, resource demand, climate change and natural disasters, proliferation of weapons of mass destruction and effects, and failed or failing states.²⁰ Influences on the future operational environment are more complex than those experienced during Operation Desert Shield/Storm and Operation Iraqi Freedom. Success in the era of persistent conflict hinges on "how quickly a state of stability can be established and maintained."²¹ The implications of future conflict require joint force commanders and staff to "factor two important constraints into their calculations: logistics

¹⁸ U.S. Department of the Army, Army Field Manual 6-22: *Army Leadership* (Washington, D.C.: Government Printing Office, 2006), 4-1.

¹⁹ George W. Casey, JR, Memorandum for all General Officers, Senior Executive Service, and the Command Sergeants Major, Army Training and Leader Development Guidance (Washington, D.C.: Department of the Army, 2008), 4-5.

²⁰ U.S. Department of the Army. Army Field Manual 3-0: *Operations* (Washington, D.C.: Government Printing Office, 2008), 1-1.

²¹ Ibid., 1-3.

and access."²² Integral, then, to theater opening and distribution success or failure in the contemporary operating environment is *speed*.²³

In 2008 the U.S. Joint Forces Command (USFCOM) Joint Warfighting Center (JWFC) Joint Training Division published lessons learned resulting from recent worldwide visits to joint headquarters as they prepared for, planned, and executed operations. The onsite visits afforded the JWFC insights into the challenges, and derived solutions, of joint headquarters. Unlike Desert Shield/Storm and OIF 1, the study identified that 81% of all JTF headquarters have less than 30 days from notice to operational employment. The regional and global challenges outlined in FM 3-0, along with high OPTEMPO, have influenced Geographic Combat Commanders (GCC) to establish JTFs as the headquarters of choice to address arising operational problems.²⁴

Recent joint headquarters lessons learned demonstrate the importance of conducting this iterative inquiry into logistician preparedness. Findings that the joint manning document process is slow and that the service headquarters will normally provide the core of the JTF places additional responsibility on the Army senior logistician. Until complimented with other service expertise, the Army logistician is responsible for the initial planning effort. Second, the enablers at the GCC and national level are not always requested by the joint force headquarters nor pushed down by higher headquarters and supporting commands. USJFCOM did not articulate why the joint force headquarters did not ask for assistance. A contributing factor could be a gap in doctrine, education, experience, and/or training.

²² U.S. Department of Defense. U.S. Joint Forces Command. "The Joint Operating Environment 2008: Challenges and Implications for the Joint Operating Force" (Suffolk: USJFCOM), 48.

²³ Emphasis added to stress the importance of competent and prepared senior logisticians.

²⁴ Gary Luck, *Joint Operations: Insights and Best Practices*, (Norfolk: USJFCOM Joint Warfighting Center, 2008), 24.

These recent joint force lesson learned come to life when examining a not so distant event in the Southern European Task Force (SETAF). In 2003, while preparing for a CJCS supported exercise, President George W. Bush directed U.S. forces to prepare for humanitarian operations and possible non-combatant evacuations of U.S. civilians in the country of Liberia. The total time from receipt of Execution Order to the deployment of the JTF was less than 30 days. During the 30-day period, the European Command Service Components had two weeks to fill their joint manning document requirements. For two weeks, the SETAF G4, a colonel with no previous joint experience, had to lead a J4 staff in the joint planning process.²⁵ This real-world vignette demonstrates the study's validity.

The new strategic environment dictates that Army senior logisticians need to understand fully the dynamics of the joint logistics environment and that they are adequately educated, trained, and professionally developed to execute full spectrum operations.²⁶ According to Joint Publication 4-0, *Joint Logistics*, a critical factor for the "development, enhancement and control of joint logistics is the process that trains, educates, and develops joint and Service logisticians."²⁷ The focus on joint logistics human capital also includes an "experiential component to developing joint logistics skills; some things can only be learned through performance of tasks."²⁸ Learning through task execution, a BCTP exercise, will inform the study's underlying preparedness question.

²⁵ Insights to the SETAF vignette provided by BG(Retired) Tim McLean during a 16 January 2008 phone interview. During the SETAF operation, BG(Retired) McLean was serving as a BCTP senior mentor for the CJCS exercise that was usurped by the real-world operation.

²⁶ The JLE is composed of the Services, the Defense Logistics Agency, the U.S. Joint Forces Command (USJFCOM), and the U.S. Transportation Command (USTRANSCOM).

²⁷ U.S. Department of Defense. Joint Publication 4-0: *Logistics* (Washington, D.C.: Government Printing Office, 2008), I-3.

²⁸ Ibid., I-3.

The final, and perhaps most compelling, reason for conducting this study is the expanded responsibilities of a JTF/CJFLCC J4. These responsibilities include forming, training, and directing the J4 staff, coordinating the overall joint force logistics functions and requirements, advising the commander on all sustainment matters, formulating policy, controlling the sustainment boards, bureaus, centers, cells, and workgroups, coordinating and synchronizing theater deployment and distribution requirements with national providers to include USTRANSCOM, DLA, and service materiel commands.²⁹ The preparedness of Army senior logisticians to effectively transition from a green-suit job into the complex joint logistics environment is ever more important. Using the Joint Learning Continuum and the inquiry's methodology, the first point of discovery is joint doctrine.

Foundation: Joint Doctrine

"The key to maintaining and enhancing joint force effectiveness is the military leader's diligence in studying, applying, teaching, and ultimately improving joint doctrine, which provides the foundation for joint warfare."
—Joint Publication (JP) 1, 2007³⁰

Doctrine establishes the foundation for professional military education and training. According to JP 1, *Doctrine for the Armed Forces of the United States*, "the purpose of joint doctrine is to enhance the operational effectiveness of US forces ... incorporates contemporary lessons ... and standardizes training.³¹ The linkage between doctrine and policy to training and education occurs through the Universal Joint Task List (UJTL), the comprehensive integrated menu of functional tasks, conditions, measures, and criteria supporting all levels of DoD in executing the National Military Strategy. To assess whether a gap exists in joint doctrine

²⁹ U.S. Department of Defense, Joint Publication 3-33: *Joint Task Force Headquarters* (Washington, D.C.: Government Printing Office, 2007), VIII-9.

³⁰ U.S. Department of Defense. Joint Publication 1: *Doctrine for the Armed Forces of the United States* (Washington, D.C.: Government Printing Office, 2007), ii..

³¹ Ibid., A-1.

regarding the four USTRANSCOM strategic capabilities, the review construct focuses on two questions. What is performed? How is it performed?

The JTF headquarters performs three primary deployment functions: conducts planning (plan), provides command and control (execute), and maintains accurate deployment information (control).³² These three deployment functions serve as subcategories and help identify the applicable joint publications for review. A functional crosswalk between the three JTF functions and the USTRANSCOM deployment and distribution capabilities helps to inform the completeness of joint doctrine. The resulting crosswalk assesses doctrine completeness by tabulating the results with a "YES", or a "NO". Table 1 catalogues the findings.

WHAT IS PERFORMED				
FUNCTION	JDDOC	JTF-PO	D4M-S	D4M-A
PLAN JP 5.0	NO	NO	NO	NO
EXECUTE JP 3.0, JP 3.33, JP 3-35, JP 3-17	YES	NO	NO	YES
CONTROL JP 4.0, JP 4-09, JP 4-01	YES	YES	NO	YES

Table 1. Joint Doctrine Crosswalk³³

The doctrinal crosswalk demonstrates moderate omission of USTRANSCOM deployment and distribution capabilities. The deficiency is primarily due to challenges by JFCOM in updating publications. Four of the publications were recently updated (JP 3-0, JP 3-33, JP 3-35, JP 4-0, and JP 5-0). Two publications pre-date OIF1 and are currently being updated (JP 4-01.4 and JP 4-09), but their status according to USJFCOM as of September 2008 is behind

³² U.S. Department of Defense. Joint Publication 3-33: *Joint Task Force Headquarters* (Washington, D.C.: Government Printing Office, 2007), Chapter VIII.

³³ Author's own work. Created January 15, 2008.

schedule for a December 2009 publication date³⁴. The only publication that discussed command and control was JP 3-17, *Air Mobility Operations*. This publication is by far the most comprehensive and useful to future Army senior logisticians in that it facilitates the understanding of the strategic-to-operational theater seam and provides insights into how to properly plan and control joint logistics operations.³⁵ The other doctrinal publications fail to address USTRANSCOM strategic enablers command and control procedures.

A second component of what is performed includes the UJTL. Joint tasks describe, in general terms, the current and potential capabilities of the U.S. Armed Forces.³⁶ UJTL tasks are grouped into strategic, theater strategic, operational, and tactical categories. Both JTF and JFLCC headquarters operate at the operational level of war. The operational level of war includes a total of six UJTL tasks, 233 supporting tasks, and 602 JTF Master Training Guide

³⁴ USJFCOM, "Joint Publication Status Report, 16 October 2008," http://www.dtic.mil/doctrine/publications_status.htm (accessed February 5, 2008). JP 4-09, *Global Distribution*, is scheduled for release on 9 December 2008. This will be the last logistics publication requiring updates. Referenced publications include: JP 3-0 (*Joint Operations*); JP 3-33 (*Joint Task Force Headquarters*); JP 4.0 (*Joint Logistics*); JP 4-01.4 (*Joint Tactics, Techniques, and Procedures for Joint Theater Distribution*); JP 4-09 (*Joint Doctrine for Global Distribution*); and JP 5-0 (*Joint Operation Planning*).

³⁵ U.S. Department of Defense. Joint Publication 3-17: *Joint Doctrine for Air Mobility Operations* (Washington, D.C.: Government Printing Office, 2002), III 5-17.

³⁶ U.S. Department of Defense. Chairman of the Joint Chiefs of Staff Instruction 3500.04E: *Universal Joint Task Manual* (Washington, D.C.: Joint Staff, 2008), A-3.

MTG) staff tasks.³⁷ Table 2 below catalogues an analytical crosswalk of the germane MTG staff tasks against the UTJL subtasks and the USTRANSCOM strategic enablers.³⁸

WHAT IS PERFORMED (Universal Joint Task List for JTF/JFLCC)					
TASK AND NUMBER	RELATED UJTL	JDDOC	JTF-PO	D4M-S	D4M-A
104-00-J4 Establish the J4 Logistics Section	OP 1.1, OP 4.5, OP 4.6		Addresses requirement to identify liaison requirements with USTRANSCOM, but does not address the strategic enablers that are required on the J4 staff.		
135-00-J4 Establish the Logistics Readiness Center	OP 1.1, OP 4.5, OP 4.6	NO	NO	NO	NO
137-00-J4 Establish/Operate the Joint Material management Office (JMMO)	OP 1.1, OP 4.5	NO	NO	NO	NO
139-00-J4 Establish/Operate the Joint Movement Center	OP 1.1, OP 4.5		Addresses filling key leadership positions from USTRANSCOM if available		
210-00-J3/J4 Prepare Time-Phased Force and Deployment Data (TPFDD)	OP 1.1		Discusses coordination with USTRANSCOM for both COA analysis and estimates for APOD/SPOD throughput capabilities. Does not address support from USTRANSCOM via the four enablers		
216-00-J4 Develop the Logistics Estimate	OP 1.1, OP 4.5, OP 4.6	NO	NO	NO	NO
216A-00-J4 Develop the Logistics Estimate (Transportation)	OP 1.1, OP 4.5		Covers all modes of transportation, air, sea, road, and rail. Does not address how and where USTRANSCOM fits into the process		
435-00-J4 Control Logistics Support	OP 4.5, OP 4.6	NO	NO	NO	NO

Table 2. UJTL Crosswalk³⁹

The joint doctrine and UJTL crosswalk clearly demonstrates a void in adequately addressing the newly formed USTRANSCOM deployment and distribution capabilities.⁴⁰ As noted earlier in the study, GCCs have learned that newly formed Joint Task Force Headquarters often forget to request USTRANSCOM assistance or capabilities early in a mission. This

³⁷ U.S. Department of Defense, Chairman of the Joint Chiefs of Staff, *Joint Task Force Headquarters Master Training Guide* (Washington, D.C.: Joint Staff, 2003), 2-3. The six OP UJTL tasks were narrowed down to the two inclusive to theater opening and distribution: OP1 (Conduct Operational Movement and Maneuver) and OP 4 (Provide Operational Logistics and Personnel Support). OP 1 consists of 36 subtasks and 49 supporting JTG MTG staff tasks. OP 4.0 includes 37 subtasks and 42 supporting JTF MTG staff tasks. An additional review of OP 1.0 and OP 4.0 inquiry relevance resulted in the narrowing down to the 78 UJTL subtasks to three (OP 1.1, OP 4.5, and OP 4.6) and the 91 supporting MTG staff tasks to eight.

³⁸ Entries with text illustrate the level of detail regarding theater opening and distribution. Absent any discussion of USTRANSCOM strategic enablers is catalogued with a 'no' entry.

³⁹ Author's own work. Created January 15, 2008.

⁴⁰ Not included in the inquiry, are the strategic UJTL tasks SN 7.4 (Educate and Train the Force) and SN 7.4.3 (Conduct Professional Education).

oversight is understandable since joint publications and the UJTL do not adequately cover the strategic-to-operational logistics seam.

The next doctrinal crosswalk reviews joint techniques, tactics, and procedures (TTPs).⁴¹ This analysis provides a different yet useful look at doctrine in that it goes beyond the structure and function and into the process. The U.S. Army Center for Army Lessons Learned (CALL) and JFLCC products are service component documents, while both JWFC pamphlets are USJFCOM products. The joint TTP crosswalk demonstrates that the USJFCOM as the joint trainer has adequately documented the four USTRANSCOM enablers. Both JWFC products are available in the public domain on the USJFCOM Joint Doctrine, Education and Training Electronic Information System (JDEIS) web portal.⁴² Evident, however, is a lag in the Service Component's ability to update their products using the latest joint deployment and distribution TTPs.

HOW IS IT PERFORMED (Joint Tactics, Techniques, and Procedures)				
TTP	JDDOC	JTF-PO	D4M-S	D4M-A
Call CJTF Handbook - 2007	NO	NO	NO	NO
Guidebook for JFLCC Commanders	NO	NO	NO	NO
JWFC Pamphlet 8 (JDDOC)	YES	NO	YES	YES
JWFC Pamphlet 9 (JTF-PO)	YES	YES	NO	YES

Table 3. Joint TTP Crosswalk⁴³

The tabulated information above, though important and focused on the 'what' and 'how', does not articulate why joint doctrine needs to include additional detail on the strategic-to-operational logistics seam. History adequately catalogued the mishaps of two theater opening and

⁴¹ The library of joint TTPs was narrowed down to those applicable to ETO and theater distribution: CALL CJTF Handbook - 2007, the Guidebook for JFLCC Commanders, the Joint Warfighting Center Joint Doctrine Series, Pamphlet 9, Oct 2007, and JWFC Pam 8, JDDOC.

⁴² Materiel available at http://www.dtic.mil/doctrine/jwfc_pam.htm.

distribution missions resulting in DoD establishing the four new USTRANSCOM strategic enablers. Failure to address these new capabilities across the joint doctrinal collection hinders the purpose of doctrine, which is to standardize procedures and normalize understanding. Standardization affects both military education programs and joint exercises across the Services and GCCs. The current joint doctrine deficiencies result in force flow, command and control, and synchronization concerns.

First, when building combat power, DoD strategic lift constraints often result in combat and combat support capabilities flowing into theater first. This was true for both Desert Shield/Storm and Operation Iraqi Freedom as the Time Phased Force Deployment Data (TPFDD) was either frequently massaged or scrapped all together.⁴⁴ To alleviate the stresses on the force flow, DoD and USTRANSCOM now provide the Services a buffer in getting operational and tactical logistics capabilities into theater. The USTRANSCOM deployment and distribution capabilities, by design, provide the early joint logistics command and control until the JTF/JFLCC headquarters are in place with all their designated capabilities. DoD is in essence buying time for Service components to continue the practice of front-loading combat and combat support capabilities early on in the contingency. Understanding this protocol will prevent unnecessary adjustments to the TPFDD. The best way to codify the procedure is through timely joint doctrine updates.

Second, joint doctrine must address the command and control relationships between the USTRANSCOM enablers, the GCC, the JTF/JFLCC, and the Services. Joint doctrine affords

⁴³ Author's own work. Created January 15, 2008.

⁴⁴ William G. Pagonis, *Moving Mountains: Lessons in Leadership and Logistics from the Gulf War* (Boston: Harvard Business School Press, 1992), 125.

significant latitude to the GCC and the joint force commander regarding task organization.⁴⁵ JP 3-17, *Air Mobility Operations*, was the only document that adequately addressed command and control. Upon commencing crisis action planning, the U.S. Army senior logistician transitioning into a JTF/JFLCC J4 must synchronize joint planning, execution milestones, and deliverables with the GCC per the formal Joint Operation Planning and Execution System (JOPES).⁴⁶ The Army senior logistician will rely on joint doctrine to guide the planning effort, the development of the sustainment estimates, the sustainment concept of support, and the supporting sustainment annexes. Joint publications must document the pros and cons of operational vice tactical control and supporting and supported relationships, related to each of the four USTRANCOM strategic enablers. Providing command and control clarity will greatly facilitate and improve the JTF/JFLCC crisis action planning and orders process.

Finally, joint doctrine falls short in addressing how USTRANSCOM, the GCC, the JTF/JFLCC, and the Services monitor and control the theater opening and distribution operation using boards, bureaus, centers, cells, and workgroups. These integral venues at the strategic-level (GCC) and the operational-level (JTF/JFLCC) are designed to resolve joint logistics issues concerning prioritizations, allocations, and procedural changes driven by the ever-shifting operational environment. Joint Publication 4-0, *Joint Logistics*, provides a cursory review at best, with no discussion on the four strategic enablers and USTRANSCOM's role and participation in the JTF/JFLCC sustainment battle rhythm events.⁴⁷ Identifying the battle rhythm events that feed

⁴⁵ U.S. Department of Defense. Joint Publication 3-0: *Joint Operations* (Washington, D.C.: Government Printing Office, 2008), III-3.

⁴⁶ U.S. Department of Defense. Joint Publication 5-0: *Joint Operation Planning* (Washington, D.C.: Government Printing Office, 2006), III-19.

⁴⁷ U.S. Department of Defense. Joint Publication 4-0: *Joint Logistics* (Washington, D.C.: Government Printing Office, 2008), C-3. Joint Publication 3-0, *Joint Operations*, stresses the requirement to synchronize necessary boards and workgroups in a joint environment, III-13.

the commander's decision cycle (monitor-assess-plan-decide) and synchronizing USTRANSCOM early and frequently is critical to theater opening and distribution success.

Bringing joint publications, the UJTL tasks, and the joint TTPs into line with the new DoD strategic-to-operational deployment and distribution architecture will improve the Army senior logistician's understanding of joint matters and provide the necessary foundation for enhancements to professional education and training. The next section looks at the first of three learning continuum pillars, the adequacy of senior logistician education.

First Pillar: Education

“PME institutions should strive to provide as pure and high quality education as feasible.”

—Officer Professional Military Education Policy (OPMEP), 2005⁴⁸

In 2005, the Chairman of the Joint Chiefs of Staff (CJCS) General Peter Pace published his vision for joint officer development, paving the way to update CJCS policy on officer professional military education. General Pace's vision was an outgrowth of the 2005 Ronald Reagan National Defense Authorization Act that directed the Secretary of Defense to develop a strategic plan for joint officer management and joint professional military education, linking joint officer development to the overall mission and goals of the Department of Defense. General Pace directed the Joint Staff to develop transformative approaches to joint officer development that included the proper mix of joint and service leader competencies.⁴⁹ This direction is central to this inquiry into U.S. Army senior logistician preparedness.

The driving force for both the CJSC vision and the authorization act is 10 United States Code (USC), which outlines the requirements for joint professional military education. The U.S.

⁴⁸ U.S. Department of Defense, Chairman of the Joint Chief of Staff, “Officer Professional Military Education Policy” (Washington, D.C.: Government Printing Office), A-2.

⁴⁹ U.S. Department of Defense. Chairman of the Joint Chiefs of Staff Instruction 1300.19.

Statute directs that joint military education promote the theoretical and practical understanding of joint matters. Specifically, 10 USC directs that subject matter cover "joint planning at all levels of war, joint doctrine, and joint command and control."⁵⁰ Furthermore, the statute identifies both the U.S. Army War College and the U.S. Army Command and General Staff College Intermediate Level Education (ILE) as military educational institutions directed to teach such joint subject matter. 10 USC Section 2154 (Joint professional military education: three-phase approach) directs the Secretary of Defense to implement a joint curriculum at both the U.S. Army ILE and War College.⁵¹

Also driving the Chairman's vision is the Capstone Concepts for Joint Operations (CCJO), which describes how joint forces are to operate across the range of military operations in the future. With this in mind, the Chairman assumed that the joint force would maintain the strength to integrate a diverse set of capabilities in pursuit of a common aim. Second, the vision articulates that joint officers are built upon Service officers. In other words, it excludes a born-joint approach to officer development.⁵² Competency-based education focused on what the officer can do, vice what he has read, is essential to successfully impart joint competencies. Finally, the Chairman's vision for joint officer development ensures that all colonels and Navy captains are skilled joint warfighters who are also strategically minded and critical thinkers. Attaining the rank of colonel signifies "that an officer fundamentally thinks in a joint context at

DOD Joint Officer Management Program (Washington, D.C.: Joint Staff, 2005), 26.

⁵⁰ 109th United States Congress. USC Title 10, Subtitle A, Part III, Chapter 107, Section 2151: *Joint Professional Military Education*, <http://uscode.house.gov/download/downloadPDF.shtml> (accessed October 15, 2008).

⁵¹ Ibid., 925.

⁵² U.S. Department of Defense. Chairman of the Joint Chiefs of Staff.: "CJCS Vision for Joint Officer Development" (Washington, D.C.: Joint Staff, 2005), 1.

the operational and strategic levels of war and thereby possesses an unprecedented ability to integrate capabilities across the depth and width of the joint force.⁵³

Joint thinking is developed through a continuum of learning that includes both self-development and Service supported education. To answer the question of how well educated are U.S. Army senior logisticians in the context of this study, two Army service schools serve as a point of inquiry. They include the Command and General Staff College Intermediate Level Education (ILE) at Fort Leavenworth, Kansas, and the U.S. Army War College at Carlisle Barracks, Pennsylvania. Both programs are JPME accredited institutions in accordance with the Military Education Coordination Council (MECC) standards and required by 10 USC to educate Army officers in joint matters.⁵⁴

The U.S Army ILE 2008-2009 program offers four core logistics lessons and one credentialing lesson that target theater opening and distribution joint matters. The four core lessons include C210 (Strategic Logistics), C304 (Army Operational Logistics Capabilities), C504 (Joint Functions Sustainment), and C506 (Operational Movement and Maneuver). The one credentialing course is W120 (CFLCC Logistics Operations). The C210 learning objective standards include description of the key strategic and national sustainment tasks to include strategic deployment, force sustainment, and strategic-level organizations. The C304 learning objectives are limited to U.S. Army forces at the operational level. The C504 learning objectives include description of operational sustainment authorities, responsibilities, and capabilities. The C506 learning objective standards include description of the joint reception, staging, onward

⁵³ Ibid, 3.

⁵⁴ The MECC serves as an advisory body to the Director, Joint Staff, on joint education issues, and consists of the MECC Principals (Director, Joint Staff and heads of Joint and Service Universities) and the supporting MECC Working Group (Joint Staff J7 and dean/06 Colonels from the Principals). The purpose of the MECC is to address key educational issues of interest to the joint education community, promote cooperation and collaboration among the MECC member institutions and coordinate joint education initiatives.

movement, and integration (JRSOI) process. Finally, the W120 learning objective standards include development of a theater distribution plan.

On the surface, the four core logistics courses and one credentialing course appear properly constructed to facilitate joint theater opening and distribution education. Though each course covers the logistics implications of the operational and strategic levels of war, the lessons omitted the newly formed USTRANSCOM deployment and distribution capabilities. The only enabler discussed in the courseware is the JDDOC. Omitted from the lesson materiel is the integration of the JTF-PO at the ports, the DIRMOBFOR-Air at the APOD with the JFACC, and the DIRMOBFOR-Surface at the SPOD. Course C120 adequately addresses the responsibilities of USTRANSCOM and its component commands, but the course materiel does not address how the joint force headquarters leverages the USTRANSCOM strategic enablers to coordinate and synchronize theater opening tasks. Course C304 covers theater opening and distribution, but the courseware is limited to U.S. Army capabilities at the operational level. Course C504 covers joint theater distribution and the role of the JDDOC, but omits the other three USTRANSCOM strategic enablers. Absent this detailed discussion, the broad concepts provide only marginal utility for future simulation exercises or real-world theater opening and distribution operations.⁵⁵

The operational movement and maneuver course C506 relies solely on latent joint publications for its course materiel. These outdated manuals include JP 3-35, *Deployment and Redeployment Operations* (7 May 2007), and JP 3-0 (17 September 2006). Assigned readings from the CJCS historical collection are also outdated and include Operation CHROMITE (amphibious landing at Inchon) and Operation Desert Storm. On a good note, students are

⁵⁵ With 21 years of experience, assessment made by the author after analyzing the courseware for inclusion of the newly formed USTRANSCOM deployment and distribution capabilities.

provided useful USTRANSCOM internet links. However, omitted from this resource list is the USJFCOM JDEIS web portal that contains useful USTRANSCOM information.⁵⁶

Finally, course W120 relies on two key source documents for the lesson materiel. These include the "Guidebook for Joint Force Land Component Commander," dated 10 February 2006, and FM4-01.4 (Draft), *Army Theater Distribution*, dated 27 May 2008. Both source documents adequately address Army specific theater opening and distribution tasks at the Theater Sustainment Command, Expeditionary Sustainment Command, and Sustainment Brigade level. The source documents also properly address the responsibilities of the USTRANSCOM and its component commands. Absent are illustrations on the strategic-to-operational logistics seam and how USTRANSCOM capabilities fill this gap. Also absent from the courseware are valuable discussions regarding command and control, roles and responsibilities, and support relationships between the strategic enablers, the GCC, the JTF/JFLCC, and the Service components.⁵⁷

The next JPME accredited strategic level U.S. Army training institution is the U.S. Army War College, which offers two core logistics lessons; Joint Projection, and Joint Sustainment.⁵⁸ According to the Joint Projection lesson objectives, students must comprehend the joint projection capabilities and understand the role of the JDDOC to facilitate joint force projection.⁵⁹ A review of the lesson materiel for USTRANSCOM enablers resulted in positive findings.

⁵⁶ Joint Forces Command. *JDEIS. Joint Doctrine, Education and Training and Information System (JDEIS)*. <https://jdeis.js.mil/> (accessed August - December 2008)

⁵⁷ Assessment made by the author after analyzing the courseware for inclusion of the newly formed USTRANSCOM deployment and distribution capabilities. Not assessed is the discussion that occurs in the classroom, which may result in discourse regarding the USTRANSCOM strategic enablers.

⁵⁸ In a telephone conversation on 7 January 2008 and subsequent emails COL James D. Scudieri, the lesson author for Joint Projection, confirmed that the U.S Army War College offers two logistics lessons germane to this study. Not included in this study were elective lessons.

⁵⁹ U.S. Department of the Army. U.S. Army War College Core Course Curriculum, "Joint Force Projection" (Carlisle Barracks: War College, 2008), p.1.

Covered are both the JTF-PO and the JDDOC capabilities, though the only JTF-PO discussion occurs in the notes pages, and the course materiel omits the differing APOD and SPOD node capabilities. Expanding the lesson reading materiel to include JWFC Pamphlet 9, *JTF-PO*, would enhance the instruction. Emphasized to great extent is the function and role of the JDDOC, including its organizational structure. Not discussed are the DIRMOBFOR-Surface and Air. Both these capabilities are integral to the joint deployment and distribution coordination and synchronization, and should be addressed. As a whole, the Joint Projection lesson receives a positive assessment and requires only minor changes to include all four USTRANSCOM capabilities.⁶⁰

The other core assessment, Joint Sustainment, did not fare as well. The lesson objectives include "analyze joint and multinational logistics arrangements" and "synthesize strategic and operational logistics capabilities into a joint force concept of support."⁶¹ The lesson covers sustainment functions, authorities and responsibilities, the joint logistics environment, command and control, and joint concept of support. The lesson devotes a disproportional amount of time on authorities and responsibilities, which include discussion on Title 10 responsibilities, direct authority for logistics, executive agent, inter-serving support agreements, and acquisition and cross servicing agreements. Another section on joint logistics capabilities covers the civilian augmentation programs and contractors on the battlefield. In total, 76% of the subject material is devoted to strategic policy and programs without mention of USTRANSCOM and the Defense Logistics Agency (DLA).⁶²

⁶⁰ Assessment made by the author after analyzing the courseware for inclusion of the newly formed USTRANSCOM deployment and distribution capabilities.

⁶¹ U.S. Department of the Army. U.S. Army War College Core Course Curriculum, "Joint Force Sustainment" (Carlisle Barracks: War College, 2009), p.1.

⁶² The courseware includes 21 Microsoft PowerPoint, of which 16 are devoted to authorities and policies. The remaining courseware (5 of 21) is germane to this study.

Of particular interest are two lesson subject areas; the Joint Logistics Environment and joint concept of support. The first area outlines the Joint Logistics Environment by depicting the linkage between the strategic, operational, and tactical levels of war. This subject materiel should be followed by lesson material that enumerates how USTRANSCOM enablers cover the strategic-to-operational logistics seam. In addition, the Joint Logistics Environment subject area depicts a notional command and control scenario where the GCC establishes a joint logistics command. The courseware should also include the national provider linkages, which readily translate into a JTF scenario, thus expanding the lesson's utility.

The next lesson agenda item, joint concept of support, offers two one-page examples of sustainment functions. One example uses three buckets, pre-hostilities, hostilities, and post hostilities, to categorize the joint sustainment functions. The second example categorizes the same functions using the doctrinal six-phased joint operation.⁶³ Both joint concept of support techniques are rather rudimentary and offer only a two dimensional view of the problem. Absent from both examples is the process owner and their logistics capabilities. Also missing are the levels of war, which focus the student on strategic joint logistics providers, the operational level headquarters and enablers, and the tactical Service component capabilities. The lesson material has but one reference to USTRANSCOM and as a whole does not transfer to the student sufficient joint logistics knowledge.

Not addressed to this point are mitigating factors excluded from the above lesson assessments. These include class discussion, the lesson's context, and class composition. Lesson material is but one means of transferring knowledge to the student. The lesson slides are not stand-alone and discourse is the mechanism to elicit in-depth class discussion on a variety of concepts. Second, the logistics lessons are part of a larger course that is allocated a finite amount

⁶³ The six phases as outlined in Joint Publication 3-0, *Joint Operations*, include shape,

of time. The theme of logistics is woven throughout the larger course. As important is the contemporary operating environment, which places demands on U.S. Army JPME learning institutions. One could argue that opening a theater of operation is not a contemporary topic requiring detailed attention by the U.S. Army learning institutions. Finally, the logistician is a small part of the student body and courseware is tailored to meet the educational requirements of the entire student body. The mission of the U.S. Army Command and General Staff College and the U.S. Army War College is to educate and develop future leaders for full spectrum joint, interagency, and multinational operations, not to develop senior logisticians.

Although both programs meet the requirement of 10 USC in that the lesson material addresses joint planning, doctrine, and command and control, using the study's inquiry framework the Army's ILE and War College education programs require modifications to better prepare senior logisticians for theater opening and distribution operations. Public law also directs each military department to periodically review its curriculum in order to strengthen the focus on joint matters and preparing officers for joint duty assignments.⁶⁴ Due diligence is demonstrated in that both colleges update courseware multiple times a year. A more subjective bar is the statutory requirement to promote the theoretical and practical understanding of joint matters.⁶⁵ With the exception of the War College's Joint Projection and U.S. Army ILE's Operational Movement and Maneuver lessons, the other assessed programs fall short in addressing recent changes to deployment and distribution operations. Regarding the CJCS vision of transforming the officer to think in a joint context, again the colleges are meeting the Chairman's intent yet the courseware

deter, seize initiative, dominate, stabilize, and enable civil authority.

⁶⁴ 109th United States Congress. USC Title 10, Subtitle A, Part III, Chapter 107, Section 2152: *Joint Professional Military Education: General Requirements* <http://uscode.house.gov/download/downloadPDF.shtml> (accessed October 15, 2008), 924.

⁶⁵ 109th U.S. Congress. USC Title 10, Subtitle A, Part III, Chapter 107, Sec 2151: *Definitions* <http://uscode.house.gov/download/downloadPDF.shtml> (accessed October 15, 2008),

falls short in keeping pace with current doctrine.⁶⁶ Bringing the curricula to date by incorporating the USTRANSOM deployment and distribution capabilities will improve officer education and strengthen conformity to both the Chairman's intent and the statutory requirements.

Second Pillar: Experience

"Joint experience is a key learning opportunity; it is where education and training move from concept to reality."

—DoD Joint Officer Management Program, 2008⁶⁷

Experience is the joint knowledge Army senior logisticians gain while assigned to joint organizations and staffs. Though the learning of conceptual and practical joint matters is obtained while reading joint publications and attending professional military education programs, joint experience is acquired through actual job performance. According to Peter Senge, author of *The Fifth Discipline*, "the most powerful learning comes from direct experience."⁶⁸ This section evaluates the quantity and quality of joint assignment opportunities for U.S. Army senior logisticians, and the Department of Defense performance in achieving maximum Joint Specialty Officer (JSO) qualification standards.

The starting point for identifying approved Secretary of Defense Joint Duty Assignments (JDA) is the Standard JDA (S-JDA).⁶⁹ A joint assignment is one that meets the tour length

924.

⁶⁶ U.S. Department of Defense. Chairman of the Joint Chiefs of Staff. "CJCS Vision for Joint Officer Development" (Washington, D.C.: Joint Staff, 2005), 3.

⁶⁷ U.S. Department of Defense. Chairman of the Joint Chiefs of Staff Instruction 1300.19. *DOD Joint Officer Management Program* (Washington, D.C.: Joint Staff, 2005), 12.

⁶⁸ Peter M. Senge. *The Fifth Discipline: The Art and Practice of The Learning Organization* (New York: Doubleday, 1990), 23.

⁶⁹ The term 'joint assignment' will replace the more cumbersome terminology of Standard Joint Duty Assignment (S-JDA).

requirement as prescribed in 10 USC 664(a), which is not less than 3 years for officers.⁷⁰

Approved joint assignments comprise the Joint Duty Assignment List (JDAL), an approved roster maintained by the Joint Staff.⁷¹ Successful completion of a JDAL assignment is the primary path to designation as a Joint Qualified Officer (JQO). The position/experience plus joint education, discussed in the previous section, is required to achieve JQO status. The position responsibilities must meet the joint matters 10 USC definition as discussed in the prior section.⁷²

DoD implemented in 2005 a self-JQO nomination process that enables service members to identify their joint experiences, duties, and performance in joint matters. The program is too new for data collection and analysis, and is therefore not included in this study. This study also omits the career-long accumulation of joint experience as recognized by the CJSC by the awarding of joint qualification points accrued from education, experience and discretion to include joint training and exercises. The sole focus on this section is the more traditional job-based experience.⁷³

The JDAL included 178 logistics positions for U.S. Army lieutenant colonels (122) and colonels (56). Lieutenant colonels are included in the study since their joint experiences play a critical factor in both professional development and joint knowledge later in their careers upon

⁷⁰ U.S. Department of Defense. Chairman of the Joint Chiefs of Staff Instruction 1330.05: *Joint Officer Management Program Procedures* (Washington, D.C.: Joint Staff, 2008), B-4. With a Secretary of Defense waiver the requirements drops to 22 months and some overseas/deployed positions are only 12 months.

⁷¹ To obtain a copy of the JDAL contact the U.S. Army Human Resources Command Joint Policy Section. The JDAL information used in this study is current as of 11 September 2008.

⁷² Refer to footnote number 50 on page 22.

⁷³ U.S. Department of Defense. Chairman of the Joint Chiefs of Staff Instruction 1330.05: *Joint Officer Management Program Procedures* (Washington, D.C.: Joint Staff, 2008), B-4 and Instruction 1300.19: *DOD Joint Officer Management Program* (Washington, D.C.: Joint Staff, 2005), 29.

promotion to colonel.⁷⁴ Joint assignments range from Joint Staff (JS), GCC, NATO, DLA, and other Services components assigned or attached to functional combatant commands. The JDAL assignments considered most applicable to this study include assignments to USTRANSCOM, USJFCOM, and the GCCs respectively.⁷⁵ The table below catalogues these JDAL assignments by command.

JOINT ASSIGNMENT OPPORTUNITIES (Senior US Army Logisticians)			
LOCATION	LTC	COL	Total
USTRANSCOM	13	6	19
JFCOM	6	4	10
COCOMS	40	8	48
Total	59	18	77

Table 4. Senior Logistics JDAL Positions⁷⁶

The JDAL breakout for U.S. Army logisticians shows that 48 percent of lieutenant colonel joint assignments (59 out of 122) are to locations that provide the greatest opportunity to learn about USTRANSCOM strategic enablers. For colonels, this percentage is much lower. Only 32 percent (18 out of 56) of colonel-level logistics JDAL positions afford USTRANSCOM strategic enabler experience. In light of the lessons learned from Desert Shield/Storm and OIF1 and the strategic environment challenges enumerated by FM 3.0 and the Joint Operating Environment 2008, the quantity of logistics colonels with joint qualification status through on-

⁷⁴ The study includes Lieutenant Colonels in order to broaden the inquiry scope and more accurately assess senior logistician joint assignment opportunities.

⁷⁵ Another discriminator was the likelihood and frequency of agency/headquarters involvement in the theater-strategic and operational level of war. The Joint Staff was excluded for this reason.

⁷⁶ Author's own work. Created on December 15, 2008.

the-job experience seems rather low.⁷⁷ This environment is not conducive to the previous CJCS standard to think joint intuitively. Improvements may include the introduction of selection boards for lieutenant colonel joint assignments to ensure those officers with the greatest upward mobility receive joint experience. Another option is to make joint qualification a pre-requisite for assignment to the Corps G4 or Operational Command Post for the Army Service Component Command. A review of the JDAL positions leaves no concern regarding the quality of assignments.

It is DoD policy "that a significant number of officers be ... experienced in joint matters to enhance the joint war fighting capability of the United States through a heightened awareness of joint requirements."⁷⁸ The DoD Instruction on officer management enumerates that joint experience is a learning opportunity because it is where joint professional education and joint exercises move from concept to reality. Though education provides the foundation for learning and understanding, the competencies to operate jointly "must be demonstrated by practice."⁷⁹ The practice an officer receives from joint assignments is therefore the essential requirement for building a larger pool of joint qualified officers.

10 USC Section 667 requires the Secretary of Defense to provide Congress an assessment of the extent to which the Secretary of each military department is assigning personnel to joint duty assignments in accordance with public law. The annual report provides another lens to assess how many officers achieve the JQO standards. The latest open source Secretary of Defense report to the President and Congress is Fiscal Year 2004. According to the report, a total

⁷⁷ One factor that attributes to the low joint qualification rate of U.S. Army colonels is the non-selection/promotion rate of joint qualified lieutenant colonels. To increase joint experience DoD can increase the colonel assignment or improve the joint selection process for lieutenant colonels. Also not included are those officers that have served in two or more joint assignments.

⁷⁸ Department of Defense. Secretary of Defense Instruction Number 1300.19: *DoD Joint Officer Management Program* (Washington, D.C.: DoD), 2.

of 262 lieutenant colonels and 118 colonels were JQO designated by the U.S. Army. Since this includes all branch specialties, by extrapolation the number of logistics JSO qualified logistics officers is estimated at 1/3 of the total force pool, or roughly 114 personnel.⁸⁰

From FY04 to the end of FY08 the number of JQO officers has increased dramatically. According to the U.S. Army Human Resource Command, as of September 2008, 1533 field grade logistics officers, or just eight percent, achieved JQO certification.⁸¹ The impetus of the surge is unknown, but speculation points to the newly formed self-assessment that awards joint qualification points over time from career-long service. The high OPTEMPO in Iraq, Afghanistan, and elsewhere afford service members many opportunities to obtain joint experience points and JQO certification.⁸² These non-standard routes, however, do not afford the optimal environment to obtain the right MCO-focused theater opening experience.

Assessing DoD's performance in maximizing JQO qualification is difficult since neither 10 USC nor the Department provides metrics or targets other than the approved JDAL. Absent a yardstick, any quantitative assessment and insight pertaining to joint knowledge and on-the-job experience related to the USTRANSCOM deployment and distribution capabilities is meaningless. A more relevant discussion is the fact that fewer than 10% of field grade logisticians achieve JQO certification, which significantly limits the pool of senior officers with joint experience. The mere shortage of joint billets and the need to prepare logisticians for theater

⁷⁹ Ibid., 12.

⁸⁰ Department of Defense. "Annual Report to the President and Congress" (Washington D.C.: DoD), D-2.

⁸¹ According to HRC, the total force pool of logistics field grade officers (majors-lieutenant colonels-colonels) is 19,067 as of September 2008.

⁸² U.S. Department of Defense. Chairman of the Joint Chiefs of Staff Instruction 1330.05: *Joint Officer Management Program Procedures* (Washington, D.C.: Joint Staff, 2008), B-5.

opening and distribution, therefore, places even more weight on joint doctrine and professional military education.

Third Pillar: Collective Training

"There is a rhythm in everything, but the rhythms of the art of war are especially difficult to master without *practice* (emphasis added)."

—Miyamoto Musashi

Japanese warrior/commentator⁸³

In light of the historical theater opening and distribution challenges discussed during the introduction, the inquiry into joint doctrine, education, and experience demonstrates the need for incremental improvements. However, the gaps identified do not necessarily point to a senior logistician knowledge deficit regarding joint matters. One way to gauge how well senior logisticians perform is to evaluate USTRANSCOM deployment and distribution capability integration and senior logistician performance during actual theater opening and distribution operations. Since real-world Major Combat Operations do not occur but once or twice in an officer's career, and the last high intensity theater of operation to open was Iraq in 2003, the best-suited environment to formulate this assessment is the USJFCOM-led and U.S. Army Battle Command Training Program (BCTP) supported simulation exercise.⁸⁴

Located at Fort Leavenworth, Kansas, BCTP is the Army's premier organization to train headquarters at brigade and above without the involvement of large troop movements. With an environment limited to buildings and command posts located around the world, this training program leverages computer simulation to test the joint acumen in a realistic and stressful environment. According to Peter Senge, "learning occurs through teaching, through 'changing

⁸³ U.S. Department of Defense. U.S. Joint Forces Command. "The Joint Operating Environment 2008: Challenges and Implications for the Joint Operating Force" (Suffolk: USJFCOM), 43.

⁸⁴ Crisis response and limited contingency operations such as Operation Enduring Freedom-Philippines/Trans Sahara/Horn of Africa and recent tsunami and earthquake relief

the rules of the game,' and through *play* (emphasis added).⁸⁵ The play refers to microworlds, or the leveraging of computers to simulate relevant play thus enabling senior leaders to explore new strategies and actions to investigate possible outcomes.⁸⁶ Simulations are low cost since the costs of failure vanish. For businesses, according to Senge, the use of play is rather rare. For the U.S. military, where failure is not an option, the use of simulations to assess senior leaders and evaluate the training and readiness of military units is most essential.

The inquiry's initial question regarded the adequacy of Army senior logistician collective training for theater opening and distribution preparedness. To ascertain the answer, the Army's BCTP Operations Group Delta, the entity chartered with training Army Service Component Commands (ASCC) and Army Forces (ARFOR) headquarters, recommended the analysis of feedback from recent exercise After Action Reviews and assessments from senior logistics mentors. Donald Schoen, author of *Educating the Reflective Practitioner*, believed that good coaching while executing a task was paramount to learning.⁸⁷ This point is also supported by General Pace's 2005 vision when he articulated that "what the officer can do vice what he has read -- is essential to successfully imparting these desired joint competencies."⁸⁸

To assess the impact of joint doctrine, education, and joint assignment experiences on logistician preparedness, two different BCTP exercises were evaluated. They include a Corps tasked to form a JTF and an ASCC tasked to form a CJFLCC. As a matter of business rules, the

leverage USTRANSCOM deployment and distribution capabilities but on a smaller scale than Major Combat Operations.

⁸⁵ Peter M. Senge. *The Fifth Discipline: The Art and Practice of The Learning Organization* (New York: Doubleday, 1990), 315.

⁸⁶ Ibid., 315.

⁸⁷ Donald A. Schoen. *Educating Reflective Practitioner* (San Francisco: Bass Inc., 1987), 17.

⁸⁸ U.S. Department of Defense. Chairman of the Joint Chiefs of Staff. "CJCS Vision for Joint Officer Development" (Washington, D.C.: Joint Staff, 2005), 2.1.

Army's BCTP does not release for public domain the observer/trainer observations and exercise summary. These official reports and senior mentor feedback are intended solely for unit commanders and disclosing their contents for public use may negatively inhibit future assessments and recommendations. Therefore, all interviews were confidential; the names of interviewees are withheld by mutual agreement.

The first exercise involved an Army Corps headquarters tasked to form JTF for a bilateral scenario. Task organized under the JTF were Air Force, Army, Navy, and Special Operations component commands. The exercise scenario required extensive deployment and movement of U.S. forces and materiel by USTRANSCOM as a supporting commander. However, a review of exercise observations demonstrated a lack of national provider involvement. According to the Observer Controller, "there was a notable absence of the DDOC concept ... in the scenario."⁸⁹ The observer also noted a lack of planned Continental United States (CONUS) to theater sustainment flow. The shortfalls demonstrate the absence of both the DIRMOBFOR-Surface and Air. The observer also stated, "There was no discussion in the board [regarding planned or actual] inter-theater lift or strategic lift."⁹⁰ The lack of focus on the strategic-to-operational logistics seam further supports the absence of the DIRMOBFOR-Air. Nowhere in the exercise summary was their discussion concerning USTRANSCOM or the JTF-PO. The most logical explanation is that this Corp-level exercise was not a USJFCOM-supported exercise, thus USTRANSCOM was not tasked for exercise support.⁹¹ This begs the questions as to why the Corps G4 (J4 during the exercise) did not notionally integrate the strategic capabilities during the exercise planning process.

⁸⁹ Observation from a BCTP Operations Group Delta observer/controller, Corps Headquarters Exercise Summary Report, 60.

⁹⁰ Ibid., 54.

Unlike the U.S. Corps BCTP, the ASCC-level exercise was a priority for USJFCOM thus ensuring that USTRANSCOM strategic enablers were fully integrated into the simulation and exercise play. Another reason for success was the GCC's participation as a Higher Command (HICON). The GCC established clear objectives that enumerated both exercise play involving joint force deployment and sustainment of joint forces. In turn, the ASCC established supporting exercise objectives that included "Establish ... Operational Command Post and conduct Theater Opening and Distribution."⁹² To accomplish the objectives, the Phase I academics included USTRANSCOM enablers capabilities and locations. In addition, the GCC constructed a Phase II scenario in order to provide the ASCC/CFLCC the opportunity to "exercise/validate the Joint Theater Opening (JTO) concept."⁹³ Finally, Phase III focused on major combat operations and the sustaining for forces while simultaneously conducting JRSOI for units still flowing into theater. A review of all three-exercise phases demonstrated that senior logisticians across the command effectively synchronized the USTRANSCOM deployment and distribution capabilities during the simulation.

The Combatant Command J4 took the lead to synchronize sustainment across the command. Monthly web-meetings involved the Combatant Command J4, JTF J4, and each component joint headquarters. During the exercise train-up the ASCC/JFLCC recommended C2 and support relationships for three of the USTRANSCOM capabilities. They included the JTF-PO TACON to the JFLCC with further delegation to the Army Theater Sustainment Command (TSC), the JDDOC forward elements collocated with the JFLCC J4 and the TSC, and the

⁹¹ Department of Defense, U.S. Joint Forces Command. "FY08 RCC Priority for JWFC Support" <https://www.us.army.mil/suite/portal/index.jsp> (accesses 6 February 2008).

⁹² ASCC After Action Report, p7. Report is confidential (not a classification term) and all reference to the unit name and exercise are withheld by mutual agreement. The Commander for the Corps Headquarters BCPT exercise did not establish theater opening or distribution training objectives.

DIRMOBFOR-Surface with tactical control delegated the JFLCC.⁹⁴ The GCC concurred with these recommendations, though the JTF-PO was only involved during the Phase I academics.

Additional insights on how well senior logisticians performed during the exercises comes from the BCTP-sponsored exercise mentor, a retired logistics general officer tasked with the mission to teach, coach, and mentor. Though both BCTP exercises had a colonel as the senior J4 logistian, the mentor that provided insights for this study did not participate in the simulations addressed above. The mentor formed his observations over several years of JTF/JFLCC level exercise participation.⁹⁵

According to the BCTP logistics mentor, Army senior logisticians demonstrate a working knowledge of USTRANSCOM capabilities and consistently incorporate the four deployment and distribution capabilities into simulation exercises. This includes both academics and the actual simulation. In addition, commanders are placing sufficient emphasis on resources and training objectives to train their staff on joint theater opening and distribution. The only concern from the senior mentor was how the senior logisticians employed the USTRANSCOM capabilities to maximize their effectiveness. The mentor witnessed significant progress since the mid 1990s and acknowledged that most colonels in today's Army understand joint doctrine.⁹⁶ Notwithstanding the corps headquarters' exercise deficiencies, the logistics mentor provides high marks to the senior logistian regarding joint knowledge and understanding of the strategic-to-operational seam. If the ASCC BCTP performance coupled with the senior mentor observations serve as the

⁹³ Ibid., 16.

⁹⁴ For the ASCC simulation exercise the JFLCC and TSC were collocated. The USTRANSCOM cell with the JFLCC also supported the TSC.

⁹⁵ The December - January 2008 telephonic and email interviews with the BCTP senior mentor are confidential communications; the name of the interviewee is withheld by mutual agreement.

⁹⁶ Ibid.

benchmark, then Army senior logisticians are mission ready as defined by the CJCS Joint Learning Continuum.⁹⁷

Recommendations and Conclusion

It may well be that the initial theater opening and distribution sustainment efforts are comparable to sausage making - it is a messy process, but when completed the finished product is often high-quality. The inquiry's hypothesis that senior logistician ETO and distribution preparedness is deficient is not supported by the study findings. Though minor gaps exist in education, experience, and training, senior logisticians exhibit a working knowledge of the USTRANSCOM enablers and the strategic-to-operational logistics seam. Given the importance of joint theater opening and distribution and the risk to our nation should an expeditionary mission fail, it is ill advised to not address the existing minor learning gaps. The CJCS Joint Learning Continuum dictates officer preparedness through continual learning and development.⁹⁸ In line with the CJCS learning framework, catalogued below are recommendations to fix the learning gaps all the while improving U.S. Army senior logistician preparedness.

Foundations (Doctrine)

The most important learning gaps are found in the joint doctrine which encompasses the strategic-to-operational logistics seam. Joint doctrine, the study's foundation, is the linchpin upon which all other recommendations hinge because of the role doctrine serves in the military profession. Simply, doctrine provides the fundamental principles for the employment of military capabilities, which directly affects education and collective training.

⁹⁷ U.S. Department of Defense, Chairman of the Joint Chiefs of Staff Instruction 35000.03B: *Joint Training Manual for the Armed Forces of the United States* (Washington, D.C.: Pentagon, 2008), G-1.

⁹⁸ U.S. Department of Defense. Chairman of the Joint Chiefs of Staff Instruction 1800.01.C: *Officer Professional Military Education Policy*, (Washington, D.C.: Joint Staff, 2005), 1.

USJFCOM has made considerable progress since the inception of the USTRANSCOM enablers to ensure inclusion in joint publications and TTPs. The study found several gaps, most notably in the area of the DM4-S, command and control issues, and synchronization. The study also identified overlaps and underlaps between doctrine and the JWFC TTPs. The first part of the doctrine strategy recommends the merger of JWFC Pam 8 (JDDOC) and Pam 9 (JTF-PO) into existing joint publications. These now obsolete publications should then be replaced with two new TTP documents; one for the DM4-S and one focused on command and control and synchronization. Eventually, these new JWFC TTPs should be merged with exiting doctrinal publications thus leaving the JWFC TTP library void of materiel on this subject matter. The end state is updated joint publications in the next 2-3 years that stand alone, thus ensuring the widest dissemination and senior logistian understanding of ETO and theater distribution joint matters.

The study methodology foundation also encompassed the UJTL tasks, which answered the question “what” is performed. The singular recommendation is to develop UJTL criteria that measuring not only outcomes or performance, but also the process. As written, the joint tasks omit important processes that may hinder a commander’s success. For example, a new UJTL task may ask the question “has the J4 considered requesting a DDOC or a JDDOC slice element from the supporting GCC?” Alternatively, “has the J4 considered and/or requested participation of the DDOC, DM4-S, DM4-A, and/or JTF-PO in applicable boards, bureaus, centers, cells, and workgroups?” These tasks, not written in a directive nature, help to guide the new J4 through the complex process of standing-up and training a new headquarters staff. Other process UJTL tasks would focus on the extent to which the new J4 leveraged the many capabilities of the supporting GCC and USJFCOM.

First Pillar (Education)

The most difficult learning gap to remedy is education, since learning institutions are primarily focused on the most important U.S. Army and DoD needs and requirements. U.S. Army PME institutions are limited by the most critical resource, that of time. With existing

operations in Iraq and Afghanistan taking center stage, the author has no expectation of learning institutions reallocating time to the logistics field of study. The most prudent approach to the ETO and theater distribution-learning gap is to update the current lesson plans, with support from the USJFCOM and the USTRANSCOM. Updated courseware followed by class discussion is sufficient enough to educate senior logisticians on this subject matter. Finally, all logistics lesson plans should include a link to the JDEIS to ensure students have access to the latest doctrine, education, and training materiel.

Second Pillar (Experience)

It is hard to argue that current allocation of logistic assignments do not adhere to DoD policy or 10 USC Section 668. However, that fact that only 59 lieutenant colonel and 18 colonel JDAL assignment opportunities afford ETO and distribution experience, and each assignment length between 2-3 years in total, the aggregate number of senior logisticians that are able to obtain on-the-job knowledge in joint matters is staggeringly slim (so low that only 8% of field grade logisticians (1553 out of 19,067) are joint qualified). To improve this metric, and without justifying a target, the following four actions will improve senior logistician on-the-job experience.

First, modify Department of the Army personnel policy to maximize the assignment of available former battalion commanders into a JDAL position.⁹⁹ The policy change will enhance the practical and the theoretical knowledge base of future U.S. Army senior logisticians, those officers most likely to serve in a Corps or ASCC G4 position and potentially serve as a JTF or JFLCC J4. Next, using the JDAL 5-year review process that commences in 2009, prioritize USTRANSCOM, USJFCOM, and the GCC senior logistics positions ahead of the other

⁹⁹ The controlling policy for this action is Army Regulation 614-100: *Officer Assignment Policies, Details, and Transfer* (Washington, D.C.: Government Printing Office, January 10, 2006).

agencies/staffs/commands.¹⁰⁰ This targeted manning policy may not be viable until current OIF/OEF requirements abate. Third, Department of the Army could increase the quantity of joint qualified senior logistician by as much as 30% per year by requesting an early release waiver at the two-year mark.¹⁰¹ Increasing personnel turnover would have to be selective and coordinated with the joint organization.

Finally, the Army should require JSO qualification as a prerequisite for assignment of a colonel to a Corps G4 or the ASCC Operational Command Post. There is no policy prohibiting the assignment of non-JQO former brigade commanders to the Corps G4 or ASCC level key logistics positions.¹⁰² Instead, non-JQO former brigade commanders should move to a key joint developmental position first. The last place a senior logistian needs to acquire practical joint experience is not during a real-world JTF/JFLCC major combat operation.

Third Pillar (Collective Training)

The next set of recommendations focus on the USJFCOM-led and BCTP supported simulation exercise program. The inquiry already established that senior logisticians demonstrate joint knowledge regarding USTRANSCOM deployment and distribution capabilities. Consistent with the CJCS Joint Learning Continuum, the subsequent ASCC and Corps headquarters actions will further enhance logistian preparedness.

¹⁰⁰ The controlling policy for this action is CJCSI 1330.05. *Joint Officer Management Program Procedures* (Washington, D.C.: Joint Staff, 2005).

¹⁰¹ The procedure for early release is available in CJCSI 1300.19. *DoD Joint Officer Management Program* (Washington, D.C.: Joint Staff, 2005), 33-35.

¹⁰² Documenting this change would occur in Army Regulation 614-100, *Officer Assignment Policies, Details, and Transfers*.

First, leverage the USJFCOM JWFC expertise to design and plan the exercise simulation.¹⁰³ In coordination with the supporting commander, ensure the BCTP training objectives include theater opening and distribution, and the inclusion of national provider staff. Design a phase II exercise construct that requires the JTF/JFLCC staff to open a theater of operation with USTRANSCOM assistance. Second, leverage the USJFCOM JWFC Joint Training Group (JTG) in the development of the BCTP academic training plan. The USJFCOM JTG is the right activity to coordinate the support of the national providers. Next, request participation from the 57 personnel strong USJFCOM standing JTF during simulation exercise crisis action planning and OPORD development.¹⁰⁴ These JFC headquarters experts will improve staff knowledge on joint matters resulting in enhanced orders processes and products.

Finally, request support from the USJFCOM JWFC Deployable Training Team (DTT). The training element will support JTF/JFLCC staffs via multiple venues, to include academics, planning workshops, focused functional training sessions, and senior leader seminars.¹⁰⁵ Workshops and training sessions outside the formal exercise process to improve staff knowledge through iteration. A learning construct of successive, iterative training events "yields greater understanding ... of the whole [problem]."¹⁰⁶ U.S. Army senior logisticians will benefit from USJFCOM-supported iterative theater opening and distribution training events, which in turn will improve performance during follow-on BCTP exercises.

Individual Training and Self-Development

¹⁰³ U.S. Department of Defense. Chairman of the Joint Chiefs of Staff Manual 3500.03B. *Joint Training Manual for the Armed Forces of the United States* (Washington, D.C.: Joint Staff, 2005), Q-2.

¹⁰⁴ Ibid., Q-8.

¹⁰⁵ Ibid., Q-12.

¹⁰⁶ Jamshid Gharajedaphi. Systems Thinking. Managing Chaos and Complexity: A Platform for Designing Business Architecture (New York: Butterworth-Heinemann, 2006), 113.

The last set of recommendations focus on the individual. The CJCS Joint Learning Continuum outlines the importance of individual training and self-development. According to the CJCS, joint experience requires the successful application of what individuals learn through self-development.¹⁰⁷ The inquiry framework, however, excluded both joint individual learning elements due to the study scope. Absent specific study findings on senior logistician individual training and self-development, the following recommendations provide senior logisticians further opportunities for professional development.

First, recommend senior logisticians leverage the readily available distributed joint courseware-learning tools to enhance their knowledge of joint matters. The Joint Knowledge on Line (JKO) web portal by far is the most useful tool. The JKO portal offers a series of training courses to include detailed instruction on the JDDOC, JTF-PO, deployment and distribution, and JTF headquarters. JKO also provides other resources to educate and assist in individual learning.¹⁰⁸ Another portal offering unique courseware is the Doctrine Networked Education and Training (DOCNET) website. Operated by the joint staff, this self-development tool hosts a series of courses designed to enhance joint doctrine training. The DOCNET lessons related to ETO and TD include Logistics, Deployment and Redeployment Operations, JTF Employment Considerations, and JTF - From the Commander's Perspective.¹⁰⁹

Second, recommend senior logisticians know where to obtain the latest joint doctrine and TTPs. The authoritative source for this information is the JDEIS information system. Replacing the Joint Electronic Library, the JDEIS catalogues the latest updates to doctrine, UJTL tasks,

¹⁰⁷ U.S. Department of Defense. Chairman of the Joint Chiefs of Staff Instruction 3500.01e: *Joint Training Policy for the Armed Forces of the United States* (Washington, D.C.: Joint Staff), A-4.

¹⁰⁸ U.S. Department of the Army. Joint Knowledge Online (JKO). Web site: <http://jko.jfcom.mil/> (accesses October 1, 2008).

¹⁰⁹ Joint Forces Command. DOCNET. *Doctrine Networked Education and Training*. Web

education, training, and related information.¹¹⁰ Another useful site for deployment and distribution information is the USTRANSCOM DPO Portal. The DPO portal provides useful information via briefings and internet links regarding strategic deployment and distribution activities and processes. Recommend senior logisticians subscribe to the semi-monthly USTRANSCOM DPO Newsletter.¹¹¹

Finally, senior logisticians must leverage the triad of training programs provided by the USJFCOM Joint Deployment Training Center (JDTC). The Center provides resident training at Fort Eustis, mobile training teams and on-line courses all focused on joint deployment. Instruction on JOPES and the Global Combat Support System - Joint (GCSS-J) will enhance the Army senior logistician's joint knowledge, thus reinforcing the understanding of theater opening and distribution operations.¹¹²

Conclusion

Almost six years ago, the 173D Airborne Brigade's organic support company supported elements of the 4th Infantry Division in Northern Iraq. The adhoc supporting relationship was no different from the logistical work-a-rounds during Desert Shield/Storm 12 years earlier. To remedy the strategic-to-operational logistics seam, DoD and USTRANSCOM created four deployment and distribution enablers to support the joint force commander and GCC early-on during a campaign. This study focused on these four enablers, and using the CJCS Joint Learning Continuum, analyzed joint doctrine, education, experience, and collective training in order to assess U.S. Army senior logisticians preparedness.

site: <http://www.dtic.mil/doctrine/default.htm>. (accessed November 5, 2008).

¹¹⁰ Joint Forces Command. *JDEIS. Joint Doctrine, Education and Training and Information System (JDEIS)*. Web site: <https://jdeis.js.mil/> (accessed August - December 2008)

¹¹¹ U.S. Transportation Command. Distribution Process Owner Portal. Web site: <http://www.transcom.mil/dpo/> (accessed January 2009).

¹¹² Joint Forces Command, Joint Deployment Training Center (JDTC). Web site: <http://www.jdtc.jfcom.mil/>. (accessed Novermber 10, 2008).

The value of this study is the iterative review of joint doctrine, joint education, logistician experience, and collective training, and the recommendations to enhance senior logistician preparedness within the construct of the Joint Learning Continuum. Implementation of the study recommendations will most surely strengthen the logistician's chance of success when the nation calls once again for expeditionary operations. The contemporary operating environment is ever changing, and over time, DoD and the Services will adjust doctrine, education, experience requirements, and training to meet the new demands. For the senior logistician, life-long learning and the pursuit of utmost preparedness never ends.

Appendix A

Deployment and Distribution Command and Control

Expeditionary Theater Opening (ETO) operations, according to the Headquarters Department of the Army (HQDA) G4, include the critical initial actions involved in the rapid insertion and expansion of force capabilities into an area of operations.¹¹³ These tasks include opening and operating ports of debarkation, establishing and operating the initial distribution system, conducting and controlling reception, staging, and onward movement activities, providing operational sustainment, and providing for force protection and basic life support functions for units deploying into the theater of operation.¹¹⁴

USJFCOM, the executive agent for joint doctrine, further enumerates Expeditionary Theater Opening in Joint Warfighting Center Pamphlet 9 as "the ability to rapidly establish and initially operate ports of debarkation (air and sea), establish sustainment bases(s), and facilitate port throughput within a theater of operations."¹¹⁵ Joint theater opening and distribution encompasses the USTRANSCOM Deployment and Distribution Command and Control organizations (JDDOC, JTF-PO, DIRMObFOR-Air, and DIRMObFOR-Surface) that support the joint force commander (See Figure 2). A unified logistics environment with well-defined authorities, business rules, collaborative relationships, and integrated capabilities that enhance

¹¹³ U.S. Department of the Army, Army Chief of Staff G4: "ETO Informatin Paper" (Washington, D.C.: U.S. Army, 2008), 1.

¹¹⁴ The force protection and life support functions are not germane to this study since they fall outside the mission, roles, and function of the four USTRANSCOM deployment and distribution enablers.

¹¹⁵ U.S. Department of Defense, Joint Forces Command Joint Warfighting Center, *Joint Doctrine Pamphlet 9: Operational Implications for the Joint Task Force - Port Opening* (Suffolk: JFCOM, 2007), 33.

unity of effort is the USTRANSCOM objective to remedy theater deployment and distribution gaps within the strategic-to-operational logistics seam.¹¹⁶

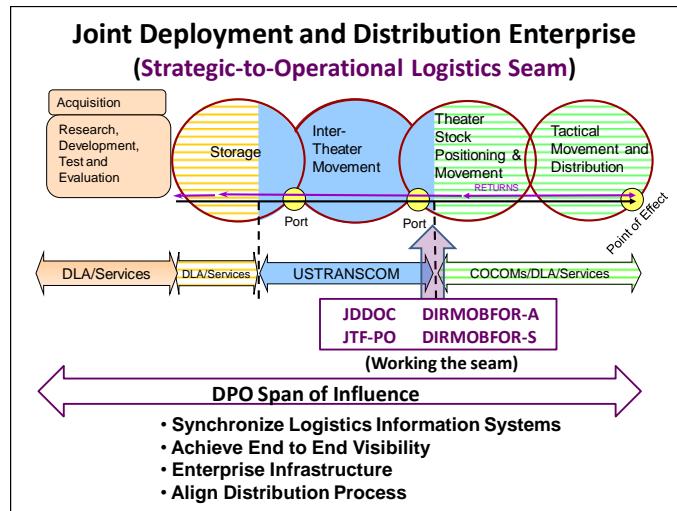


Figure 2. Strategic-to-Operational Seam¹¹⁷

The joint ETO definition enumerates the JP 4-0 logistics imperative of rapid and precise response and will serve as the yardstick to measure and assess doctrine utility and leader education requirements.¹¹⁸ Joint theater distribution describes the in-theater network and system for distribution management, with a focus on "establishing distribution management structure and battlefield architecture to maintain visibility and control over forces and materiel arriving for

¹¹⁶ USTRANSCOM "Theater Deployment and Distribution (TED2) Gaps/Shortfalls," <http://www.transcom.mil/portalSearch.cfm?StartRow=1&MaxRows=25&Criteria=DIRMOBFOR> (accessed 15 January 2008).

¹¹⁷ Diagram is an adaptation from a 20 August 2008 USTRANSCOM command briefing. Removed from the diagram are references to vendor distribution operations. Added are the four deployment and distribution capabilities included in this inquiry. Release authority provided by USTRANSCOM TCJ5/4.

<http://www.transcom.mil/portalSearch.cfm?StartRow=1&MaxRows=25&Criteria=DIRMOBFOR> (accessed 15 January 2008).

¹¹⁸ U.S. Department of Defense, Joint Publication 4-0: *Joint Logistics* (Washington, D.C.: Government Printing Office, 2007), I-7. The joint logistics imperatives include unity of effort, joint logistics environment wide visibility, and rapid and precise response.

employment in-theater.¹¹⁹ The intent of joint theater distribution is to deliver critical supplies, under positive control and through a highly visible distribution pipeline, from source to user. The DoD transition from supply to distribution-based sustainment reduces the need for layered stockpiles, reduces logistic management personnel in theater, and provides more effective and responsible support to deployed forces.¹²⁰ Helping the joint force commander to achieve these objectives are the four USTRANSCOM strategic enablers.

First, the **JTF-PO** is an expeditionary capability that can rapidly establish and operate an aerial or sea port of debarkation (POD), conduct cargo handling and movement operations to a forward distribution node, facilitating port throughput in support of combatant commander executed contingencies. The JTF-PO provides the Commander USTRANSCOM and the Combatant Commander with an expeditionary capability that is jointly trained and immediately effective to open a POD and facilitate JRSOI ad theater distribution. The JTF-PO Aerial Port of Debarkation (APOD) is modular and scalable and consists of elements from the 18th Air Force, Air Mobility Command (AMC) Contingency Response Groups at McGuire Air Force Base, New Jersey and Travis Air Force Base, California, and three 55-Soldier transportation detachments Rapid Port Opening stationed at Fort Eustis and Fort Story, Virginia.¹²¹ The JTF-PO is required to attain "ready-to-load" status at the deployment Port of Embarkation no later than 12 hours from unit notification. The JTF-PO Sea Port of Debarkation (SPOD) is also modular and scalable with a current size of 75 personnel. The capability remains under the operational control of the Surface Deployment Distribution Command, the Army component to USTRANSCOM, and upon

¹¹⁹ U.S. Department of Defense, Joint Publication 3-35: *Deployment and Redeployment Operations* (Washington, D.C.: Government Printing Office, 2007), V-6.

¹²⁰ Ibid., V-7.

¹²¹ Jeff Ackerson, email message to author, January 30, 2008. The 18th Air Force operational entity, the 618th Tanker Airlift Control Center (TAAC), is the operational arm of

notification, they must be ready to depart in 36 hours. USTRANSCOM's Naval Component, the Military Sealift Command, provides maritime technical and ships husbandry support to the organization. The JTF-PO provides rapid port opening and theater distribution of cargo to a forward node up to 10 kilometers from the seaport.¹²²

By design, the JTF-PO operates for 45-60 days with a follow-on service component relief in place.¹²³ The JTF-PO supports USTRANSCOM's mission of providing end-to-end synchronized cargo and passenger movement and common-user terminal management. The JTF-PO accomplishes its mission by interfacing with the USTRANSCOM's DDOC, the GCC's JDDOC, other deployment and distribution enablers, associated PODs, and other organizations. When employed, USTRANSCOM normally retains operational control, but can transfer to other GCCs using normal request for forces procedures as the situation dictates.¹²⁴ The Initial Operating Capability occurred on 1 October 2006. JTF-PO began reporting operational status in the Defense Readiness Reporting System, enabling a monthly review of its operational status during the first quarter, fiscal year 2008. Two of the three Army transportation detachments are active and trained, with the third element scheduled for October 2009 activation. The JTF-PO

AMC. AMC concerns itself with functions normally associated with administrative control. Operational control of USTRANSCOM assigned forces is executed through 18th Air Force.

¹²² U.S. Department of Defense. US Transportation Command. "2007 Annual Report" (Scott Air Force Base: USTRANSCOM, 2007), 4; Jeff Ackerson, email to the author, January 30, 2008. There is another situation leading to the formation of the JTF-PO in addition to requests initiated by the GCC. The second case is a decision by the Commander, USTRANSCOM. In this role as the supporting commander, CDRUSTRANSCOM may select the employment of JTF-PO as the course of action best capable of optimizing support to the GCC.

¹²³ U.S. Department of Defense, Joint Forces Command Joint Warfighting Center, *Joint Doctrine Pamphlet 9: Operational Implications for the Joint Task Force - Port Opening* (Suffolk: JFCOM, 2007), 1-10. The service force for the U.S. Army includes the Theater Sustainment Command (TSC) and a Sustainment Brigade with a Theater Opening (TO) element assigned to the headquarters.

¹²⁴ U.S. Department of Defense. Joint Publication 4-1: *Joint Logistics* (Washington, D.C.: Government Printing Office, 2008), V-10.

Full Operating Capability is expected in March 2010 after the last Army surface element is completes verification of mission capability.¹²⁵

Next, the **DIRMOBFOR-Surface** is a general officer charged with the responsibility to coordinate and synchronize operational surface transportation to support the JFC's priorities. The DIRMObFOR-Surface, normally filled by the Army component to USTRANSCOM, working with the JDDOC, provides a single entity integrating total force and material flow from the port of debarkation to a designated intra-theater destination. This key individual links joint and surface distribution operations to solve mobility issues.¹²⁶ The **DIRMOBFOR-Air** is the most mature and documented of the strategic enablers and serves as the designated agent for all air mobility issues in the joint area of operation. The DIRMObFOR-Air coordinates and synchronizes air mobility through the JTF's Air Mobility Division (AMD), which is located within the Joint Air Operation Center (JAOC). "The AMD, as directed by the DIRMObFOR, will integrate and direct the execution of intra-theater and USTRANSCOM assigned air mobility forces operating in the AOR or JOA in support of JFC objectives."¹²⁷ Specific duties include directing and integrating inter-theater USTRANSCOM forces, direct tasking of air mobility forces, coordinate the tasking of USTRANSCOM air mobility forces, and coordinate all inter-theater air mobility missions. The DIRMObFOR-Air is normally the most senior officer who is

¹²⁵ U.S. Department of Defense. "Secretary of Defense Annual Report to the Congressional Defense Committees. Status of the Department of Defense's Business Transformation Efforts" (Washington, D.C.: Government Printing Office, 2008), 197; Jeff Ackerson, USTRANSCOM J5/4, email message to author, January 30, 2008.

¹²⁶ U.S. Transportation Command, "Theater Deployment and Distribution (TED2) Shortfalls/Gaps," <http://www.transcom.mil/portalSearch.cfm?StartRow=1&MaxRows=25&Criteria=DIRMOBFOR> (accessed January 15, 2008).

¹²⁷ U.S. Department of Defense. Joint Publication 3-17: *Joint Doctrine, Tactics, Techniques and Procedures for Air Mobility Operations* (Washington, D.C.: Government Printing Office, 2002), III 8-9.

familiar with the JOA, and is filled by either of the Air Force component command from the GCC or USTRANCOM.¹²⁸

The **JDDOC** (Figure 3) is the JFC's single point of contact for all deployment and distribution operations in the joint area of operations, as well as leveraging the expertise of the services materiel commands, the Defense Logistics Agency, and other national level support agencies. Each GCC J4 has a JDDOC, but the capability "may be placed under other command or staff organizations."¹²⁹ Established since January 2004, a JDDOC forward resides in CFLCC and Third Army Forward to support both OIF and OEF operations.¹³⁰

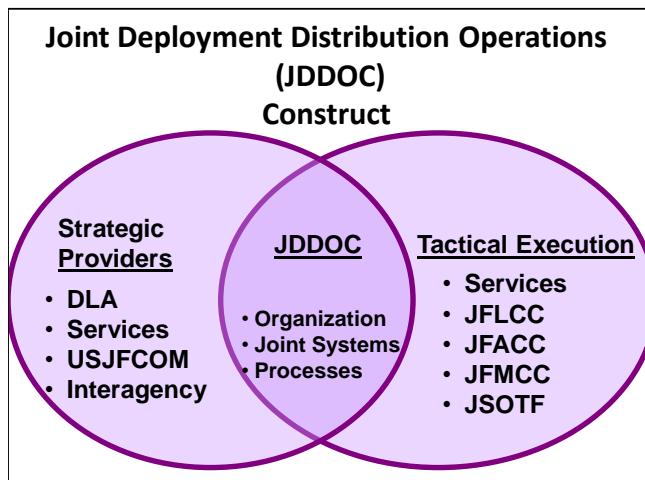


Figure 3. JDDOC Construct¹³¹

The JDDOC links deployment and distribution aspects of strategic-national lines of communication to the intra-theater lines of communication. In essence, it serves as the logistics Kingpin as advocated by LTG Pagonis during DS/DS. This capability provides the JFC agility

¹²⁸ Ibid., III-5-6.

¹²⁹ U.S. Department of Defense. Joint Publication 4-0: *Joint Logistics* (Washington, D.C.: Government Printing Officer, 2008), Appendix C.

¹³⁰ Gregory S. Otey, "Mending the Seam: Joint Theater Logistics," *Air Force Journal of Logistics* (Volume XXX, Number 2, Winter 2006): 14.

¹³¹ Author's own work. Created December 15, 2008.

by executing rapid operations, decisiveness by improving flow of forces and equipment, and materiel, and promotes integration by providing a single point of coordination for all service components in the area of operation. The JDDOC confirms the combatant commander's deployments and distribution priorities, validates intra-theater support requirements to the component commands and the JTF, monitors intra-theater surface distribution support to other joint force components, adjudicates identified GCC distribution and intra-theater shortfalls, coordinates requests for additional USTRANCOM support, and sets the conditions for effective theater retrograde.¹³² Similar to the JTF-PO, the JDDOC retains its "direct organizational relationship to the combatant command. It is not a subordinate activity of the organization to which it may be attached.¹³³ JDDOC is the baseline organization upon which current and future USTRANSCOM Theater Enterprise Deployment and Distribution (TED2) is being built.¹³⁴

¹³² U.S. Department of Defense. Joint Publication 3-33: *Joint Task Force Headquarters* (Washington, D.C.: Government Printing Office, 2007), VIII-5

¹³³ U.S. Department of Defense. Joint Publication 4-0: *Joint Logistics* (Washington, D.C.: Government Printing Officer, 2008), Appendix C.

¹³⁴ TED2 is USTRANSCOM current effort to develop common capabilities for joint theater deployment and distribution. Though TED2 replaces the JDDOC and JTL as a tracking initiative, this inquiry was limited to the most mature and tested D2 capabilities.

Bibliography

Books

Clausewitz, Carl Von. *On War*. Princeton, New Jersey: Princeton University Press, 1976.

Fotenot, Gregory COL(Retired). *On Point. The United States Army in Operation Iraqi Freedom*. Fort Leavenworth, Kansas: Combat Studies Institute Press, 2004.

Gharajedaphi Jamshid. *Systems Thinking. Managing Chaos and Complexity: A Platform for Designing Business Architecture*. New York, New York: Butterworth-Heinemann, 2006.

Pagonis, William G. *Moving Mountains: Lessons in Leadership and Logistics from the Gulf War*. Boston: Harvard Business School Press, 1992.

Schoen, Donald A. *Educating Reflective Practitioner*. San Francisco, California: Jossey-Bass Inc., Publishers, 1987.

Senge, Peter M. *The Fifth Discipline: The Art & Practice of The Learning Organization*. New York, New York: Doubleday, 1990.

Swain, Richard M. *Lucky War. Third Army in Desert Storm*. Washington, D.C.: U.S. Army Center of Military History, 1997.

Government Documents and References

Casey George W., Jr. General. "Army Training and Leader Development Guidance." Memorandum for all General Officers, Senior Executive Service, and their Command Sergeants Major. August 13, 2008.

Luck, Gary. General (Retired). "Joint Operations. Insights & Best Practices." United States Joint Forces Command, Norfolk, Virginia: Joint Warfighting Center, 2008.

Reagan, Ronald. 1986. Public Paper of the Presidents of the United States: "Statement of Signing the Goldwater-Nichols Department of Defense Reorganization Act of 1986." Washington D.C.: Government Printing Office.

Shinseki, Erick K. General(Retired). "End of Tour Memorandum." Memorandum for the Secretary of Defense. June 10, 2003

UN Security Council. 1990. *Resolution 678. Security Council Resolutions - 1990*. New York, New York. United Nations..

U.S. Army. Army Chief of Staff G3. "Operation Iraqi Freedom Observations, Quick Look." December 2003.

—. Army Chief of Staff G3. "The Army Strategy." Washington, D.C.: Government Printing Office, August 22, 2008.

—. Army Chief of Staff G4. "2008 Army Posture Statement. Expeditionary Theater Opening Information Paper." February 26, 2008.

—. Command and General Staff College. Center for Army Lessons Learned. *CALL Handbook No.08-02, Transition into a Combined Joint Task Force*. Fort Leavenworth, Kansas:Combined Arms Center, December 2007.

- . Command and General Staff College. "Course Curriculum C210, Strategic Logistics." Fort Leavenworth, Kansas. April 30, 2008.
- . Command and General Staff College. "Course Curriculum C304, Army Operational Logistics Capabilities." Fort Leavenworth, Kansas. May 22, 2007.
- . Command and General Staff College. "Course Curriculum C504, Joint Functions Sustainment." Fort Leavenworth, Kansas. May 20, 2008.
- . Command and General Staff College. "Course Curriculum C506, Joint Functions." Fort Leavenworth, Kansas. June 28, 2008.
- . Command and General Staff College. "Course Curriculum W120, CFLCC Logistics Operations." Fort Leavenworth, Kansas. August 28, 2008.
- . Command and General Staff College. "U.S. Army Operation Iraqi Freedom Observations." Washington, D.C.: Headquarters Department of the Army, 2003.
- . U.S. Army. Field Manual 3-0, *Joint Operations*. Washington, D.C.: U.S. Government Printing Office, February 27, 2008.
- . Field Manual 6-22, *Army Leadership*. Washington, D.C.: U.S. Government Printing Office, October 2006.
- . Force Management Support Activity. "Modified Table of Distribution and Allowances." Unit Identification Code WJRAA (HQ USAREUR/7A). July 16, 2009.
- . Human Resource Command. "Standard Joint Duty Assignment List. U.S. Army Logistics Positions." Washington, D.C.: Human Resource Command, Oct 20, 2008.
- . Training and Doctrine Command Intelligence Support Activity. "The Contemporary Operational Environment." Fort Leavenworth, Kansas. July 2007.
- . U.S. Army War College. "Lesson Curriculum Joint Projection" and "Lesson Curriculum Joint Sustainment." Carlisle, Barracks, 2008.
- . U.S. Army War College. "Iraq and the Future of Warfare. Implications for Army and Defense Policy." Strategic Studies Institute, Carlisle, Pennsylvania: August 18, 2003.

U.S. Department of Defense. "Annual Report to the Congressional Defense Committees. *Status* of the Department of Defense's Business Transformation Efforts." Washington, D.C.: U.S. Government Printing Office, March 15, 2008.

- . "Annual Report to the President and the Congress." Washington, D.C.: U.S. Government Printing Office, 2005.
- . Chairman of the Joint Chiefs of Staff. Instruction CJCSM 1330.05. *Joint Officer Management Program Procedures*. Washington, D.C.: U.S. Government Printing Office, May 1, 2008.
- . Chairman of the Joint Chiefs of Staff. Instruction CJCSM 1800.01C. *Officer Professional Military Education Policy (OPMEP)*. Washington, D.C.: U.S. Government Printing Office, December 22, 2005.
- . Chairman of the Joint Chiefs of Staff. Instruction CJCSM 3500.01e. *Joint Training Policy and Guidance for the Armed Forces of the United States*. Washington, D.C.: U.S. Government Printing Office, May 31, 2008.

- . Chairman of the Joint Chiefs of Staff. Instruction CJCSM 3500.02. *Universal Joint Task List (UJTL) Policy and Guidance for the Armed Forces of the United States*. Washington, D.C.: U.S. Government Printing Office, February 1, 2008.
- . Chairman of the Joint Chiefs of Staff. Instruction CJCSM 3500.03. *Joint Training Manual for the Armed Forces of the United States*. Washington, D.C.: U.S. Government Printing Office, August 31, 2007.
- . Chairman of the Joint Chiefs of Staff. Instruction CJCSM 3500.03B. *Joint Training Manual for the Armed Forces of the United States*. Washington, D.C.: U.S. Government Printing Office, August 15, 2008.
- . Chairman of the Joint Chiefs of Staff. Instruction CJCSM 3500.04E. *Universal Joint Task Manual*. Washington, D.C.: U.S. Government Printing Office, August 25, 2008.
- . Chairman of the Joint Chiefs of Staff. Instruction CJCSM 3500.05A. *Joint Task Force Headquarters Master Training Guide*. Washington, D.C.: U.S. Government Printing Office, September 1, 2003.
- . Chairman of the Joint Chiefs of Staff Guide 3501. *The Joint Training System, A Primer for Senior Leaders*. Washington, D.C.: U.S. Government Printing Office, July 31, 2008.
- . Chairman of the Joint Chiefs of Staff Memorandum Notice 3500.1. "2009-2010 Chairman's Joint Training Guidance." Washington, D.C.: U.S. Government Printing Office, September 8, 2008.
- . Chairman of the Joint Chiefs of Staff. "Vision for Joint Officer Development." Washington, D.C.: U.S. Government Printing Office, November 2005.
- . Department of Defense Directives 5100.1. *Functions of the Department of Defense and Its Major Components*. Washington, D.C.: U.S. Government Printing Office, August 1, 2002.
- . Department of Defense Instruction Number 1300.19. *DoD Joint Officer Management Program*. Washington, D.C.: U.S. Government Printing Office, Incorporating Change 1, August 21, 2008.
- . Department of Defense Instruction Number 5158.06. *Distribution Process Owner*. Washington, D.C.: U.S. Government Printing Office, Incorporating Administrative Change 1, September 11, 2007.
- . Deputy Undersecretary of Defense. "Joint Staff Sponsored Assessment to Review the Effectiveness and Efficiency of Selected Aspects of Logistics Operations During Operation Iraqi Freedom (OIF). Objective Assessment of Logistics in Iraq." March, 2004.
- . Joint Forces Command. *Guidebook for Joint Force Land Component Commanders*. Suffolk, Virginia: USJFCOM, February 10, 2006.
- . Joint Forces Command. Joint Warfighting Center Joint Doctrine Series Pamphlet 8. *Doctrinal Implications of the Joint Deployment Distribution Operations Center*. Suffolk, Virginia: USJFCOM, February 10, 2006.
- . Joint Forces Command. "Joint Warfighting Center Doctrine and Education Group's Newsletter, Force Deployment. A Common Perspective." Norfolk, Virginia: U.S. Government Printing Office, May 2005.

- . Joint Forces Command. Joint Warfighting Center Joint Doctrine Series Pamphlet 9. *Operational Implications of the Joint Task Force - Port Opening*. Suffolk, Virginia: USJFCOM, October 5, 2007.
- . Joint Forces Command. "The Joint Operating Environment 2008. Challenges and Implications for the Future Joint Force." Suffolk, Virginia: USJFCOM, November 25, 2008.
- . Joint Publication 1. *Doctrine for the Armed Forces of the United States*. Washington, D.C.: U.S. Government Printing Office, May 14, 2007.
- . Joint Publication 3-0. *Joint Operations*. Washington, D.C.: U.S. Government Printing Office, February 13, 2008.
- . Joint Publication 3-17. *Joint Doctrine and Tactics, Techniques and Procedures for Air Mobility Operations*. Washington, D.C.: U.S. Government Printing Office, 14 August 2002.
- . Joint Publication 3-33. *Joint Task Force Headquarters*. Washington, D.C.: U.S. Government Printing Office, February 16, 2007.
- . Joint Publication 3-35. *Deployment and Redeployment Operations*. Washington, D.C.: U.S. Government Printing Office, May 7, 2007.
- . Joint Publication 4-0. *Joint Logistics*. Washington, D.C.: U.S. Government Printing Office, July 18, 2008.
- . Joint Publication 4-01. *Joint Doctrine for the Defense Transportation System*. Washington, D.C.: U.S. Government Printing Office, March 19, 2003.
- . Joint Publication 4-01.4. *Joint Tactics, Techniques, and Procedures for Joint Theater Distribution*. Washington, D.C.: U.S. Government Printing Office, August 22, 2000.
- . Joint Publication 4-09. *Joint Doctrine for Global Distribution*. Washington, D.C.: U.S. Government Printing Office, December 14, 2001.
- . Joint Publication 5-0. *Joint Operation Planning*. Washington, D.C.: U.S. Government Printing Office, December 26, 2006.
- . Joint Staff. *Universal Joint Task List (UJTL) Approved Tasks*. Washington, D.C.: U.S. Government Printing Office, August 27, 2008.
- . Secretary of Defense. "Annual Report to the President and Congress. As directed by U.S. Code Title 10, Section 667." Washington, D.C.: U.S. Government Printing Office, 2004.
- . Secretary of Defense. *The Armed Forces Officer*. Washington, D.C.: U.S. Government Printing Office, January 2006.
- . United States Transportation Command. "Distribution Process Owner. Joint Deployment Distribution Operations Center." Scott Air Force Base, Illinois: USTRANSCOM, 2005.
- . United States Transportation Command. "2007 Annual Report." Scott Air Force Base, Illinois: USTRANSCOM, 2007.

U.S. Government Accounting Office. "Report to the Subcommittee on Armed Services, House of Representatives. Defense Logistics. DOD has Begun to Improve Supply Distribution Operations, but Further Actions are Needed to Sustain these Efforts." Washington, D.C.: Government Accounting Office, 2005.

Internet

U.S. Department of the Army. Center for Army Lessons Learned. Web Site: <https://call2.army.mil/index.asp?> (accessed August - November 2008).

- . Command and General Staff College. Combined Arms Research Library. Web site: <http://cgsc.leavenworth.army.mil/CARL/index.asp>. (accessed August - October 2008).
- . Joint Knowledge Online (JKO).Web site: <http://jko.jfcom.mil/> (accessed October 1,2008).
- . Southern European Task Force. Web site: <http://www.setaf.army.mil/History/default.aspx>. (accessed 18 January 2008).
- . U.S. Army War College. Strategic Studies Institute. Web site: <http://www.strategicstudiesinstitute.army.mil/national-security-strategy-policy/>. (accessed August - October 2008).

U.S. Department of Defense. Defense New Release. "U.S. Transportation Command Appointed as Defense Distribution Process Owner." DefenseLink News Release Number: 701-03. September25, 2003. Retrieved 19 January 2008 from DefenseLink. Web site: <http://www.defenselink.mil/releases/release.aspx?releaseid=5670>.

- . Chairman of the Joint Chiefs of Staff, "Goldwater-Nichols Act of 1986." Web site: http://www.jcs.mil/goldwater_nichol_act1986.html (accesses 6 February 2008).
- . Joint Forces Command. DOCNET. *Doctrine Networked Education and Training*. Web site: <http://www.dtic.mil/doctrine/default.htm>. (accessed November 5, 2008).
- . Joint Forces Command. Web site: <http://www.jfcom.mil/>. (accessed October 2008 to January 2009).
- . Joint Forces Command. *JDEIS. Joint Doctrine, Education and Training and Information System (JDEIS)*. Web site: <https://jdeis.js.mil/>. (accessed August 2008 to January 2009).
- . Joint Forces Command, Joint Deployment Training Center (JDTC). Web site: <http://www.jdtc.jfcom.mil/>. (accessed Novermber 10, 2008).
- . U.S. Transportation Command. Distribution Process Owner Portal. Web site: <http://www.transcom.mil/dpo/>. (accessed January 2009).
- . U.S. Transportation Command. Theater Deployment and Distribution (TED2), Shortfalls/Gaps, Web site: http://www.transcom.mil/portalSearch.cfm?StartRow=1&MaxRows=25&Criteria=DIRM_OBFOR. (accessed 15 January 2008).

U.S.House of Representatives, 109th Congress, 2d Session. U.S. Code. August 10, 1956. Web site: <http://uscode.house.gov/download/downloadPDF.shtml>. (accessed October 15, 2008).

Interviews

Christiansen, Chris V. Major General, CFLCC C4. Interview by Major Paul Williams, OIF Study Group, U.S. Army Combined Arms Center, verbatim transcription done by James L. Speicher at Camp Arifjan, Kuwait, 23 May 2003, <https://call2.army.mil/links/resources/archives.asp> (accessed February 7, 2008).

Stratman, Henry. Major General, CFLCC DCG Support. Interview by COL(Retired) Gregory Fontenot, OIF Study Group, U.S. Army Combined Arms Center , transcript done at

Camp Arifjan, Kuwait, June 19, 2003. <https://call2.army.mil/links/resources/archives.asp> (accessed February 7, 2008).

Thurman, James D. Major General, CFLCCC3. Interview by LTC Steven D. Holcomb, OIF Study Group, U.S. Army Combined Arms Center, Camp Arifjan, Kuwait, May 27, 2003. <https://call2.army.mil/links/resources/archives.asp> (accessed February 7, 2008).

Periodicals

ALOG News. "USTRANSCOM Named Defense Distribution Process Owner." *Army Logistician*, January/February 2004. 49.

Ames, Christopher C. "Distribution Process Owner Initiatives are Underway." *Army Logistician*. May/June 2004, 44-45.

Dail, Lieutenant General Robert T. "Deployment and Distribution Command and Control." *Army Logistician*, March - April 2007

Mordente, Patrick, Paul Needham, and Theodore P. Ogren. "Logistics for the 21st Century. Deployment Distribution Operations, Quick Fix or Long-Term Solutions." *Air Force Journal of Logistics*, Volume XXX, Number 4, Washington, D.C.: U.S. Government Printing Office, Winter 2006.

Otey, Gregory S. "Mending the Seam: Joint Theater Logistics." *Air Force Journal of Logistics*. Volume XXX, Number 2, Washington, D.C.: U.S. Government Printing Office, Winter 2006.